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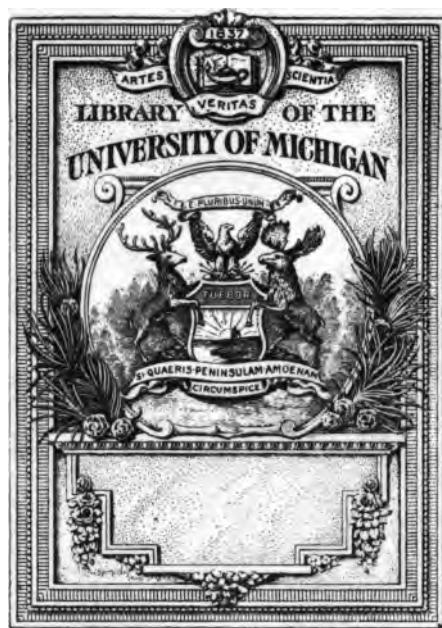
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ANNUAL REPORT
OF THE
SECRETARY OF THE INTERIOR
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1908





U. S. Dept. of the Interior
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REPORT

OF THE

SECRETARY OF THE INTERIOR

FOR THE FISCAL YEAR

ENDED JUNE 30

1908



BUREAUS OF THE INTERIOR DEPARTMENT.

GENERAL LAND OFFICE.

Organized as a bureau of the Treasury Department under act of April 25, 1812 (2 Stat. L., 716).

First Commissioner, Edward Tiffin, of Ohio; appointed May 7, 1812.

Became a bureau of the Interior Department when that Department was organized under the act of March 3, 1849 (9 Stat. L., 395).

INDIAN OFFICE.

Organized as a bureau of the War Department under act of July 9, 1832 (4 Stat. L., 564).

First Commissioner, Elbert Herring, of New York; appointed July 10, 1832.

Became a bureau of the Interior Department when that Department was organized.

BUREAU OF PENSIONS.

Organized as a bureau of the War Department under act of March 2, 1833 (4 Stat. L., 622).

First Commissioner, James L. Edwards, of Virginia; appointed March 3, 1833.

Became a bureau of the Interior Department when that Department was organized.

PATENT OFFICE.

Organized as a bureau of the State Department under act of March 4, 1836 (5 Stat. L., 117).

First Commissioner, Henry S. Ellsworth, of Connecticut; appointed July 4, 1836.

Became a bureau of the Interior Department when that Department was organized.

BUREAU OF EDUCATION.

Organized under act of March 2, 1867 (14 Stat. L., 434).

Became a bureau of the Interior Department July 1, 1869, under act of July 20, 1868 (15 Stat. L., 106).

First Commissioner, Henry Barnard, of Connecticut; appointed March 14, 1867.

GEOLOGICAL SURVEY.

Organized as a bureau of the Interior Department under act of March 3, 1879 (20 Stat. L., 394).

First Director, Clarence King, of New York; appointed April 14, 1879.

RECLAMATION SERVICE.

Organized under act of June 17, 1902 (32 Stat. L., 388), under the Director of the Geological Survey, Charles D. Walcott.

First Director, F. H. Newell, of Pennsylvania; appointed March 9, 1907.

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REPORT OF THE SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,

Washington, D. C., December 23, 1908.

SIR: I have the honor to submit the annual report of the Department of the Interior. The reports of the bureaus, offices, institutions, and Territories under the supervision of the department are presented herewith.

GENERAL STATEMENT.

The year's work has proved the value of the reorganization of the Department. By throwing full responsibility upon the heads of the bureaus, by coordinating their work, and by close cooperation between the Secretary's office and the heads of the offices and bureaus it has been possible to constantly improve the methods of administration. The changes made have for their purpose the simplification of business without any loss in accuracy or responsibility.

The frequent conferences between the Secretary and the heads of the bureaus and offices have grown in usefulness. They have brought about a closer cooperation between the bureaus engaged in similar or kindred work, and have resulted in doing away entirely with causes for friction, misunderstanding, and consequent delay in transacting business.

One interesting result of the new organization has been the personal interest which it has aroused among the officials and employees. The knowledge that improved methods, when found adaptable to government business, would be accepted has induced some employees to give great care and attention to the thoughtful study of methods for the simplification and improvement of their own work and its relation to the general work of the department.

The loyal support given by the employees of the department in the work of reorganization is especially gratifying.

During the summer I visited the Territory of Hawaii and various reclamation projects, Indian agencies and reservations, and land offices.

INSPECTION.

The change in the method of inspection of the outside services of the department has been very beneficial. The country is now divided into six inspection districts, to each of which a special inspector is

assigned. His duties cover the inspection of all the various outside offices under the department. Inspections of each office are frequently and thoroughly made. They cover the examination of accounts, the inspection of the physical condition of the public property, and an investigation into the general conduct of the official in charge and his employees. The inspections have resulted in many improvements.

PERSONNEL.

The total number of persons employed is 18,770. Of these, 4,396 are in Washington. The classified service has been extended to positions under the Land Office, the Indian Office, the Bureau of Education, and the National Parks, covering a total of 618 positions.

It is to be hoped that Congress will provide for a reclassification of all the employees of the Government and a readjustment of the salaries. No one administrative change is more needed than this. It would enormously increase the efficiency of the public service. In addition to reclassification, adequate provision should be made for the retirement of employees who have given long and meritorious service.

Under the law providing for the compensation of employees injured in the public service there have been about 50 cases reported by the Interior Department since the 1st of July of this year.

While it is too early to judge the value of this law, I am confident that it is a wise one, and is based upon the proper principle.

BUILDINGS.

The total rent roll of the department is \$44,200, and I again urge the need of providing permanent quarters for the offices and bureaus which are now in rented buildings. It is false economy to provide inadequate and nonfireproof buildings. Property of the Government under the control of the Geological Survey, the Bureau of Education, and the Reclamation Service, of very great value and much of which could not be reproduced, is in buildings not fireproof. A fire occurred in the Geological Survey building on December 16. Fortunately the promptness and efficiency of the fire department averted a serious loss, but this accident emphasizes the need of a proper building. The estimated loss is \$20,000.

I have used some space in the Pension Office for the growing needs of the Indian Office, Geological Survey, and the Civil Service Commission, yet these changes are but makeshifts. The old Post-Office building is seriously overcrowded. Both that and the Patent Office building are in need of extensive repairs. I can not urge upon Congress too strongly the need and the wisdom of providing buildings in accordance with the submitted estimates.

OFFICE OF ASSISTANT ATTORNEY-GENERAL.

The force in the office of the Assistant Attorney-General was used during the fifteen months prior to July 1, 1908, principally to bring the routine work of that office more nearly current. At the same time greater activity in the field and the bureaus caused an increase of more than 20 per cent in the number of appeals received. Appeals pending were nevertheless reduced from 958 on March 1, 1907, to 330 on July 1, 1908. When it was found that the appealed cases, the principal routine work of the office, were nearly current, some of the force of the office was detailed for other important work. Thus, in cooperation with the Department of Justice there was instituted a closer scrutiny of the land litigation both in the District of Columbia and throughout the public-land States. As a result it was found that nearly 100 suits had lain dormant for periods varying from ten to twenty years, and that in three or four hundred actions nothing had been done for more than two years prior to that time. All these cases were taken up in the field in a conference between the United States attorney, an examiner from the Department of Justice, and the chief of field division of the General Land Office, or the corresponding field officer of the Indian Office, Reclamation Service, or Geological Survey, respectively. These committees reported concerning each suit in each district with recommendation (1) that certain definite cases, in which there was no possibility of obtaining convictions or judgments, should be dismissed and cleared from the docket; (2) that those cases in which there was not sufficient evidence at hand, but reasonable hope of supplementing the evidence, should be handed over to the chief field officer of the bureau concerned to procure the necessary additional evidence under direction of the United States attorney; and (3) that those cases where the evidence on hand was sufficient should be pressed vigorously to a definite judicial determination.

In the District of Columbia there have been instituted an unusual number of mandamus and injunction actions against the Secretary of the Interior growing out of the settlement of the affairs of the Five Civilized Tribes. The Assistant Attorney-General's office has vigorously cooperated with the Department of Justice in the defense of these suits, the work in this direction requiring the time of at least one assistant attorney. The rules and regulations of the department have been scrutinized with great care to see whether the practice now in vogue meets the conditions of the present time, and assistant attorneys in this office have been continuously assisting to prepare reasonable modifications of these rules. It has also been found wise to detail assistant attorneys from this office upon specially important work in the field, either because of their peculiar knowledge of the particular work or to supplement the work of the bureaus.

The result of this new routine work in the Assistant Attorney-General's office has been that the force available on the old routine work has been cut down from 21 assistant attorneys on March 4, 1907, to 16. Since the work has increased over 20 per cent, it is found that the diminished force is obliged to exert itself to the fullest reasonable extent to keep abreast and maintain the work in a current condition. The new assistant attorneys provided for in the appropriation act of last year are detailed by the Secretary for such work in his own office or the bureaus as he may find necessary and economical. The need for them was caused by the breaking up of the old divisions in the Secretary's office and the necessity for watchful care to see that the change, with all its economies, should not do harm to the interests of the Government.

In cooperation between this office and the Indian Office a new plan was inaugurated for protecting the allottees of the Five Civilized Tribes. When it was found that Congress would undoubtedly remove the restrictions from 70,000 of those allottees, thus taking restrictions from approximately 9,000,000 acres of Indian land, Congress was asked and gave an appropriation of \$90,000 for the maintenance of local district offices advantageously scattered throughout the Five Civilized Tribes; also, \$50,000 for the use of the Attorney-General in bringing suits to clear cloud from the title of Indian land. Immediately after Congress adjourned the Department of Justice, the Assistant Attorney-General's Office, and the Indian Office joined together in arranging to discover the existing clouds, to bring suits to remove them, and to establish the most effective and economical district agent force possible. The result is that there are 14 district agents continuously in touch with the Indians and their needs; also that thousands of suits to remove clouds from title, especially of those lands which would be unrestricted on July 27, 1908, were instituted before that date. The need for such action is shown by the fact that this department has found over 23,000 such clouds upon the title of the Indians. The bringing of these suits, the establishment of the district agent's offices, the conferences held with the more ignorant Indians at various places throughout eastern Oklahoma, have all led to their protection from the loss of millions of dollars. If the suits had not been started or had not been in immediate contemplation each of these Indians would have been at the mercy of the person who had the invalid deed recorded as a cloud upon the title. They would have been obliged to sell to these men at practically their own price, or to others at an exceedingly low price, on account of the outstanding cloud. The district agents were able in the case of minors' estates alone to save over \$400,000 to the Indians within five months, and now that they are fairly organized and established the return from their services will be much greater.

The principal value of this action has been the deterring influence upon those who previously felt that they would need to account for their actions to the ignorant Indians only.

Another new class of work delegated to this office was the consideration of disbarment cases. I found that there seemed to be great looseness of ideals concerning the duties of attorneys to their clients, especially in the military bounty land warrant work. Certain firms of attorneys had obtained these valuable warrants for clients who knew nothing about the value of the warrant. Although the law specifically limits the attorneys' fees to \$25 for any such case, some attorneys took advantage of their own knowledge that the warrant was ready for delivery and that it had great value to treat with their clients for the purchase of the subject-matter of the employment without disclosing the real value of the warrant involved. In this way they made exorbitant profits out of the purchase and subsequent sale. When cited to show cause why they should not be disbarred they pleaded, among other things, that they should not be held to as high a plane of ethics as attorneys before a court. On this question I held and hold the contrary. Their admission to practice is a practical notice that this department vouches for their integrity. The class of clients they are allowed to represent are often people needing help, such as old soldiers or their widows and orphans, pioneer home-makers, and Indians. The Government has always thrown every protection possible around these people. The courts have officially declared that they should be treated "tenderly." Congress has made it a criminal offense to directly or indirectly obtain from them more than a definite and small attorney's fee in connection with pension and bounty warrant cases. This department would be derelict in its duty, therefore, if it did not require attorneys practicing before it to conform to the highest professional standards. Three mandamus suits have been instituted to try to compel the restoration of names stricken from the rolls of practitioners for the reasons given above. The court of appeals has decided that the courts have no jurisdiction to review the Secretary's judgment in disbarment cases unless there was failure to give the disbarred attorneys "due process of law." Just what procedure constitutes "due process" will probably be determined in the Supreme Court before these mandamus suits are finally concluded. In the meantime attorneys will be notified, heard, and disbarred in all cases where I am satisfied beyond a reasonable doubt that their conduct as attorneys has been disreputable, fraudulent, illegal, or undoubtedly unprofessional. This duty is specifically imposed on the Secretary of the Interior by section 5 of the act of July 4, 1884 (23 Stat., 98).

GENERAL LAND OFFICE.

GENERAL DISCUSSION.

During the fiscal year ended June 30, 1908, there were entered 19,090,356.78 acres of public land, a decrease of 1,907,209.80 acres over the preceding year. There were embraced in entries completed during the year 8,068,044.85 acres which had been reported in original entries made in previous years and are not included in the above statement. Entries of all classes made last year numbered 205,459, a decrease of 2 per cent over the preceding year.

Total cash receipts from the disposal of lands during the last fiscal year were \$12,490,426.28. Receipts from other sources were \$225,283.18, making a total of \$12,715,709.46, or an increase of 10 per cent over the receipts of the preceding year. The total expense of the district land offices for salaries, commissions, incidental expenses, and cost of depositing moneys during the last year was \$842,112.45, an increase of \$31,255.49. The aggregate expenditures and estimated liabilities of the public land service were \$2,381,359.79, leaving a net balance of \$10,334,349.67 in the Treasury.

Nine additional national forests were created during the year and 10 reduced in area. There are 165 national forests, embracing 167,976,886 acres.

Of the lands temporarily withdrawn under the forestry act, 1,283,851 acres have been restored to entry during the last year.

There were surveyed during the year 5,801,934 acres. These lands are located as follows:

Public lands surveyed during year ended June 30, 1908.

	Acres.		Acres.
Alaska	5,175	New Mexico	433,341
Arizona	234,269	North Dakota	185,790
California	4,801	South Dakota	280,091
Colorado	688,923	Oregon	273,316
Florida	36,622	Utah	354,159
Idaho	732,162	Washington	193,150
Minnesota	90,747	Wyoming	616,650
Montana	1,607,965	Total	5,801,934
Nevada	64,773		

The land office in Iowa is no longer needed. A bill was presented to Congress at its last session, but has not yet been acted upon. Its receipts during the last five years have been \$5,085.21, and its expenses \$7,817.18. This office should be immediately abolished and the records transmitted to the General Land Office, as has been done in the cases of the older States.

The reorganization in the General Land Office has been of the greatest advantage. After the changes in the office in Washington

had been completed the entire field service was reorganized. With the additional appropriations given by Congress 46 men have been added to the number of special agents since May 27, 1908, upon which date the 1908-09 appropriation became available, and the efficiency of the force has been greatly increased. Not only have the special agents been assigned to the different districts, but capable clerks from the General Land Office have been sent to the local land offices for the purpose of clearing up congested dockets and putting the local offices on a proper business basis. The result of these changes has been a very marked increase in the amount of business transacted. The following table shows the gain in the amount of work done during the years 1907 and 1908:

Business transacted by the General Land Office during fiscal years 1907 and 1908.

	1907.	1908.	Per cent increase.
Hearings before registers and receivers.....	800	1,115	271
Reports received from special agents.....	3,908	8,700	122
Reports disposed of.....	3,399	9,500	179
Unlawful inclosures of public land reported	136	254	86
Acres restored (unlawful inclosures)	259,918	762,941	193
Timber depredations reported.....	278	480	72
Fraudulent entries disposed of.....	9,251	11,662	26
Fraudulent entry hearings ordered.....	304	1,436	372
Homestead and timber and stone entries approved for patent.....	40,538	58,209	48
State selections disposed of (acres).....	818,014	2,404,973	194
Original desert entries examined	6,298	8,310	31
Final desert entries approved for patent.....	2,114	2,462	16
Indian allotments approved.....	7,195	10,117	40
Swamp indemnity approved (acres).....	0	30,639	All.
Swamp indemnity rejected (acres)	4,120	70,160	1,627
Lieu selections (act June 4, 1897) disposed of.....	478	1,269	165
Soldiers' additional homestead applications disposed of.....	95	702	639
Mineral contests closed	215	365	70
Mineral hearings ordered.....	75	128	70
Mineral entries approved for patenting or cancellation.....	1,445	1,847	28
Coal entries approved or canceled.....	157	205	30
Hearings ordered	75	128	70
Private appealed (docket) cases decided.....	1,223	1,462	19
Private unappealed cases decided.....	5,590	8,816	58
Entries canceled	5,146	8,042	56
Private land claims approved for patent.....	53	89	68
Small holding claims approved for patent	41	50	24
Lands in national forests restored to entry (acres).....	49,835	204,514	314
Withdrawals and restorations of national forests examined.....	515	1,596	209
Reports upon new forests proposed	108	137	27
Patents issued	45,978	90,522	97
Patents transmitted	47,185	95,831	102
Certified copies of records furnished	18,517	19,420	5
Maps, diagrams, etc., for official use	2,799	3,288	17
Determination of cases of coal entries.....	20,000	33,853	69
Letters received and recorded or answered without recording	262,698	800,582	14

The reorganization of the field districts, the improvement in the force of special agents, and their methods of procedure have greatly increased the efficiency of the work of protecting the public domain against improper entries. Under present methods the honest entrymen have been helped in perfecting entries, dockets in the congested land offices have been cleared off or materially relieved, and the laws against illegal entries more rigorously enforced than ever before. The most serious condition in a local land office is delay in action upon pending cases; it not only results in great annoyance to individual entrymen, but affords the opportunity for speculators to initiate frivolous contests merely to compel the entrymen to pay something for a relinquishment or withdrawal of contest.

These entries, which may properly be termed "blackmail entries," almost wholly disappear when the business of a land office is current, because such an entryman never appears at a hearing to contest. His only chance for reward is delay, which will annoy and perhaps compel the real entryman to pay something to buy off the contest.

Great improvement has been made in the local land offices during the past year. I am endeavoring to obtain as registers men who are lawyers or who have such full knowledge of the public-land laws and practice as will insure a judicial disposition of the cases presented. Receivers must be men of good common sense; they must have a knowledge of bookkeeping and accounting. Both officers should be personally acquainted with the character and condition of the land within their district. I have found it necessary to recommend a change in a number of registers and receivers in order to obtain men with such qualifications.

The work of the special agents' force during the past year has been particularly gratifying. It is not yet large enough to take care of the growing business, but, as shown by the table above, its efficiency has been tremendously increased. A number of agents have been dropped, and others will be if they fail to show proper adaptability to the work. I have endeavored to obtain men who are acquainted with western conditions, who are qualified as experts if they be placed upon expert work, who are in full sympathy with the policies of the department, who are desirous of aiding in every way the honest entryman, and who are keenly alive to the need of preventing the dishonest man from illegally acquiring public land. It is extremely difficult to get men who have the all-around qualifications required of a good special agent. Of course the highest personal integrity is absolutely necessary, and in addition to the special qualifications I have above referred to a special agent needs tact and an ability to get along with all kinds of men.

The agents have been definitely instructed that they are not to presume any man guilty of violating the law; that they are to keep their own counsel and report to the department facts, not suspicions or

rumors; but they likewise understand that whenever the facts warrant they are to report against any man, no matter what his position.

We have passed the stage when we can now permit ignorance of the law or a belief that its nonenforcement was a custom to be offered as an excuse for its violation. It is gratifying to know that the action of the department through the agents and the local officers during the past year has met with the hearty approval of the citizens of the public-land States.

There of course have been and will be individual instances of conduct by public officials not in conformity with the policies I have outlined, but wherever such instances are brought to my attention I have endeavored to correct the fault and, in proper cases, to impose a penalty upon the public officer who has failed in his duty.

OPENING OF INDIAN LANDS.

In opening the Rosebud Indian lands in Tripp County, S. Dak., a new method of procedure was followed, which resulted in great saving not only to the Government and the individual applicants, but to the Indians as well. Heretofore, under similar openings, the services of 25 or more employees of the General Land Office have been required, while in this instance only 4 assisted Superintendent Witten. Therefore, the time and other expenses of such officers were saved to the Government.

The registration points were so selected as to greatly lessen the cost of transportation and other expenses to the homeseekers, and the designation of a number of such places prevented a congestion of the applicants in the vicinity of the land, and, while a detailed report of the expenditures has not yet been completed, I am advised that the cost to the Indians will be materially less than under previous openings.

The registration and drawing were held during the present autumn and the opening delayed until next March, to give the successful applicants time in which to provide themselves with funds necessary to make the required first payment, which, with the fees, will amount to \$20 $\frac{1}{2}$ for a 160-acre tract entered prior to June 2, 1909. Moreover, the dates set for making entry are such that the homeseeker will be permitted either to move on the land selected by him and put in a crop during the season of 1909, or he may, if he so elect, postpone the establishment of his residence until September 1, 1909, or later if the entry is made after March 1, 1909, and thereby be enabled to put in a crop elsewhere.

CONSERVATION OF NATURAL RESOURCES.

The movement for the conservation of our natural resources shows that the people of the United States have fully awakened to the vital necessity of caring for what is left of the public domain. Con-

servation means not only preservation of our resources, but, as well, their wise and immediate use and the prevention of their misuse, whether by way of waste or monopolistic and speculative control.

The public domain has been placed by Congress under the Interior Department, and ample authority is vested in the Chief Executive and the Secretary of the Department to take such action as is necessary to care for the public domain. During many years the Executive has, in the exercise of this general authority, withdrawn at different times and for various purposes areas of the public domain and for the time being prevented those areas from being entered for private use.

Full power under the Constitution was vested in the executive branch of the Government, and the extent to which that power may be exercised is governed wholly by the discretion of the Executive, unless any specific act has been prohibited either by the Constitution or by legislation.

In the exercise of this power it is the duty of the Executive to take such action as will protect the interests of all the people of the United States in their property rights, and, if the occasion requires and the facts warrant, it is the duty of the Executive to prevent the acquisition of the public domain by private interests, if such acquisition be detrimental to the public welfare.

If there be no power to affirmatively provide for the ultimate use or disposition of the public domain in accordance with the needs of the public welfare, it is the duty of the Executive to temporarily prevent its acquisition until Congress may have an opportunity to consider the question and adopt appropriate legislation.

This stewardship duty of the Executive is most concretely manifest in the care of the specific property known as the public lands and their resources. From the earliest days the Executive has found it necessary in the public interest to take action concerning the public lands by withdrawing areas from entry. There was no specific provision of law for many of those withdrawals, and yet they were made unhesitatingly by the Executive as steward and were approved by Congress in acts granting land for the purpose for which it was withdrawn. These were purely the acts of stewards farsighted enough to foresee and protect the interests of their principal, the people of the United States.

President Roosevelt's withdrawal in 1906 of more than 60,000,000 acres of land supposed to contain coal, in order that it might be classified and saved for its best use, and the recent withdrawal of phosphate lands for the benefit of our farms, are notable examples of the exercise of this power in protecting the public use of our resources.

The courts have upheld the power of the Executive to withdraw public lands, not only for public use, but also for the public welfare,

when in the judgment of the Executive the public good demands such action. The following are some of these cases: *Grisar v. McDowell* (6 Wall., 364); *Wilcox v. Jackson* (13 Pet., 498); *Walcott v. Des Moines Co.* (5 Wall., 681); *Hamblin v. Lands Co.* (147 U. S., 531); *No. Pac. Ry. v. Musser-Sauntry Co.* (168 U. S., 607); *Spencer v. McDougal* (159 U. S., 62); *U. S. v. Payne* (8 Fed. Rep., 883); *U. S. v. Tichenor* (12 Fed. Rep., 415); *No. Lumber Co. v. O'Brien* (139 Fed. Rep., 614); *Russian Packing Co. v. U. S.* (39 Ct. Cls., 460); *U. S. v. Blendauer* (122 Fed. Rep., 703); *Florida Town Imp. Co. v. Bigalsky* (33 So. Rep., 450); *O'Connor v. Gertgens* (89 N. W., 866); *Hewitt v. Schultz* (76 N. W., 230).

The Secretary of the Interior as the representative of the Executive in the care of the public lands and their resources often needs to take steps neither prohibited nor specifically provided for by law to prevent some great harm or to gain some great good for all the people. However, withdrawals of and protective measures for public land, if made or taken, will be for one purpose only, namely, conservation of the public lands and their resources for their highest uses in the interests of the people. It would be a grave dereliction of duty if the Executive failed to act promptly in preventing public injury by the misuse of the public domain and its resources.

PROTECTION OF PUBLIC LANDS.

There have been collected for timber trespasses without suit \$67,902.39, and there have been recovered through suits against trespassers \$30,785.92, while one timber trespass suit recently investigated has led to negotiations for a settlement which will probably bring the Government \$150,000. Two hundred and fifty-four cases of unlawful inclosure, involving 1,323,050 acres, have been reported. The inclosures have been removed from 762,941 acres. The record of criminal proceedings of all kinds from June 30, 1907, to June 30, 1908, is as follows:

Criminal proceedings for protection of public lands during year ended June 30, 1908.

	Indict- ments.	Convic- tions.	Acquit- tals.
Timber trespass.....	16	8	14
Perjury.....	34	8	7
Subornation of perjury.....	4	0	0
Conspiracy.....	95	6	28
Forgery.....	4	0	0
Securing false affidavits.....	8	3	2
Boxing trees.....	5	7	0
Unlawful inclosure.....	64	31	5
Forest fires.....	2	0	2
Misappropriations, funds of United States.....	2	0	2
Total	234	63	60

From June 30, 1908, there have been 54 new indictments, with 35 convictions, fines amounting to \$36,607.94, and prison sentences amounting to a total of nine years and nine months.

COAL LANDS.

The Geological Survey has continued the examination of coal lands in accordance with the plan reported last year. The restorations and classifications completed up to date appear in the following table:

Status of classification and restoration of coal lands.^a

State.	Area re-stored prior to January 1, 1908. ^b	Area classified after January 1, 1908.		Total area classified or restored.	Approximate area of original withdrawals remaining to be classified.
		Coal.	Noncoal.		
Colorado	8,811,400	1,273,744	1,825,776	11,910,920	2,812,800
Montana	11,398,660	192,900	1,871,740	13,458,300	3,156,480
New Mexico.....	7,410,920	1,120,600	794,840	9,326,360	2,027,520
North Dakota	2,684,160	.....	.....	2,684,160	299,520
Oregon	552,960	.....	.....	552,960	384,000
Utah	5,201,880	.....	.....	5,201,880	668,160
Washington	668,160	.....	.....	668,160	299,140
Wyoming	16,590,052	2,421,800	2,077,400	21,089,252	4,020,480
Total	53,313,192	5,009,044	6,569,756	c 64,891,992	d 13,668,100

^a The total area originally withdrawn was 67,134,640. Of this amount 66,938,800 acres were withdrawn by various departmental orders between July 26, 1906, and December 13, 1907, and 195,840 acres were, without withdrawal, classified as coal lands from information obtained in the field.

^b These figures include 24,599,532 acres of land actually classified by geologic work and 28,713,660 acres of land which were found to contain no coal or the coal was of such low grade as to be worth only the minimum price fixed by law.

^c This area is now subject to entry under the public-land laws.

^d As a result of geologic field examination additional coal acreage is being discovered and classified each year. Of the 24,599,532 acres of land actually classified, about 11,425,452 acres had not been withdrawn from entry.

During the last year there have been taken up under the coal-land laws 44,821.12 acres at the total purchase price of \$636,668.18.

Many difficulties still arise under the existing coal law. Another year's operation under the law shows still more convincingly the need of its radical amendment. It is most earnestly to be hoped that Congress at this session will consider favorably the pending measure, which has for its purpose the segregating of the coal from the surface and the sale or lease of the coal in such quantities as will permit its development in accordance with the needs of the country, and in great measure prevent private interests from either monopolizing or holding for speculative purposes the great fuel deposits remaining in the public domain.

The pending bill provides for alternative methods of sale and lease, so that the system best adapted to any special section of the country may be used.

I am still of the opinion that the leasing system will afford the best method for protecting, conserving, and developing the coal fields in accordance with the needs of the community. When once the surface can be used for the purposes to which it is best adapted there will be no retarding of the development of that surface by withholding the disposition of the coal until such time as it can be profitably and wisely mined.

ALASKA COAL LANDS.

According to data collected by the Geological Survey, the coals of Alaska are divided into four classes—anthracite, semibituminous, bituminous, and lignite—and are widely distributed. The area of known workable coal is 792,320 acres, and the area containing coal-bearing rock 8,092,160 acres.

November 12, 1906, all coal lands in Alaska not theretofore located, filed upon, or entered were withdrawn pending consideration by Congress of their conservation and future disposition. Since the coal-mining laws were made applicable to Alaska, June 6, 1900, a total of 47 coal entries have been made, embracing approximately 7,520 acres, and 90 applications to enter have been received, embracing 14,400 acres. The exact number of locations made prior to November 12, 1906, and for which applications have not been received, can not be stated at this time.

The act of May 28, 1908, which permitted locators of coal lands in Alaska to consolidate their claims so as to include in a single purchase not exceeding 2,560 acres of lands, was given publicity and a circular of instructions issued, but up to the present time no applications to enter consolidated claims under its provisions have been filed, though numerous communications received indicate an interest in the provisions of the law. Since the date of this act 14 coal entries have been made in Alaska under the provisions of the general coal-land laws.

FENCING.

I again call attention to the law prohibiting the inclosure of the public domain or the placing of obstructions thereon. Many miles of fence and many obstructions have been removed, and many hundreds of thousands of acres of land have been thus restored to the public domain; but the enforcement of the existing law does not meet the need of the present time. The law should be so amended as to regulate the use of the public range in such manner as will be equitable to the stockmen in each locality. Such a system means the preservation and improvement of what is left of the great ranges. It would not prevent their ultimate agricultural development, as a settler

should be given the right of homestead entry and a preference to use such portion of the range as may be necessary to graze his stock.

TIMBER AND STONE.

As the timber and stone act has not been repealed, I have, under the following provision of that act, provided for the classification of timber and stone lands. Section 1 reads as follows:

That surveyed public lands of the United States within the States of California, Oregon, and Nevada, and in Washington Territory, not included within military, Indian, or other reservations of the United States, valuable chiefly for timber, but unfit for cultivation, and which have not been offered at public sale according to law, may be sold to citizens of the United States or persons who have declared their intention to become such, in quantities not exceeding one hundred and sixty acres, to any one person or association of persons, at the minimum price of two dollars and fifty cents per acre; and lands valuable chiefly for stone may be sold on the same terms as timber lands: *Provided*, That nothing herein contained shall defeat or impair any bona-fide claim under any law of the United States, or authorize the sale of any mining claim, or the improvements of any bona-fide settler, or lands containing gold, silver, cinnabar, copper, or coal, or lands selected by the said States under any law of the United States donating lands for internal improvements, education, or other purposes: *And provided further*, That none of the rights conferred by the act approved July twenty-sixth, eighteen hundred and sixty-six, entitled "An act granting the right of way to ditch and canal owners over the public lands, and for other purposes," shall be abrogated by this act; and all patents granted shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under and by the provisions of said act; and such rights shall be expressly reserved in any patent issued under this act.

This section provides that timber and stone lands may be sold "at the minimum price of two dollars and fifty cents per acre." These lands have heretofore been sold at a flat rate of \$2.50 per acre. I interpret this language to be equivalent to "not less than two dollars and fifty cents per acre." Under the new regulations such lands will be appraised and sold at the appraised value, but in no instance will the price of such lands be less than \$2.50 per acre. These regulations do not apply to timber and stone applications pending at the time of the adoption of the regulations.

RIGHTS OF WAY.

In June and July, 1908, I had made field investigations of all rights of way for reservoirs, ditches, canals, pipe lines, telephone and telegraph lines, electric transmission lines and tramroads, which had been granted up to that time under the provisions of the acts of March 3, 1891 (26 Stat., 1095), May 11, 1898 (30 Stat., 404), February 15, 1901 (31 Stat., 790), January 21, 1895 (28 Stat., 635), and February 1, 1905 (33 Stat., 628), for irrigation, power, and other

purposes. Up to the present time 242 reports have been received from the special agents who made the examinations, of which 152 are favorable to the applicants, they having constructed the works and are using the rights of way in accordance with law. Ninety reports are unfavorable, and recommendations are made that steps be taken to revoke the grants because of the nonconstruction of the works or the abandonment after partial construction, or the use of the right of way for purposes other than those allowed by the acts under which the rights of way were granted. In 20 of these 90 cases no action can be taken at this time because the five years from the date of the approval of the application allowed the applicant within which to construct the works have not expired, and no action is necessary, as some of the applicants have transferred their rights to others who have later obtained a right of way for the same site. Action has been taken on 16 of the 90 cases by this office by allowing the applicants 60 days to show cause why steps should not be taken to have the rights of way declared forfeited. One response has so far been made. The other 54 cases reported upon adversely will receive action by this office at the earliest practicable moment.

The right-of-way laws are neither equitable, certain, nor just. Some of these laws give everything to the grantee without protecting the people's interests. Others fail absolutely to give the grantees that business security which must be the foundation for great development. Another class is so uncertain in wording that it can not be administered without friction. All right-of-way laws should be codified and revised so that they will be just, reasonable, and certain. The grantees should have security against revocation, except because of nonuse or misuse, and a sufficient period of enjoyment, so that they can afford to spend the necessary money for development. The people's interests should be protected by provision for the return of the grant to their control at some reasonable time in the future, in order that it may be disposed of again according to the demands of the public welfare at that time. The best public interest also demands that the right-of-way laws provide a definite and speedy procedure for the revocation of rights of way because of willful and continued nonuse or misuse.

DESERT LAND AND DRY FARMING.

The development of dry farming and the extension of irrigated areas has brought under cultivation many thousands of acres of the public domain that hitherto were considered practically worthless. It is therefore necessary to very carefully consider how the remaining portions of the public domain should be used. I think it clear that the remaining lands should be classified in accordance with the general plan outlined in the report of the Commissioner of the General

Land Office. Under such a classification the Government could readily provide means for the disposition of these lands in such manner as to afford to the homemaker the opportunity to acquire the necessary kind and quantity of land. The homestead law is not applicable to much of the balance of the public domain. If the land is irrigated a much smaller amount than 160 acres may be required. If it be a dry-farming section, more than 160 acres may be required. It is probable in certain sections, where dry farming is feasible, that residence upon the land itself will not be possible because of the absence of potable water. It may thus be necessary and wise to permit the cultivators of such areas to live in communities some miles distant from the farms and base final proof upon cultivation and actual residence in the neighborhood. In other words, it is unwise to attempt to apply to these areas now under consideration the laws that were applicable to a totally different kind of lands.

Another great advantage of such a classification would be the possibility of classifying grazing areas in accordance with the conditions and needs of special communities.

INDIAN OFFICE.

The Commissioner of Indian Affairs followed his usual custom and spent a large portion of the summer in a personal examination of conditions in the field. This work of personal investigation, especially in agencies far removed from ordinary routes of travel, has been of immense benefit in handling the many difficult Indian problems.

The Indian Office and its field service have been radically reorganized in accordance with the general plan of departmental and bureau reorganization. There has been a gradual extension of the cooperative method of work with the General Land Office and the Reclamation Service in this department, and with the Forest Service, the Bureau of Plant Industry, and the Bureau of Animal Industry in the Department of Agriculture.

The work of opening reservations in accordance with acts of Congress has steadily proceeded. While there have been delays in some places, the general work has been carried on with such speed as is consistent with the determination of the rights of the Indians.

The present great problem with the Indians is education. I indorse most heartily the recommendation of Commissioner Leupp regarding the discontinuance of certain nonreservation schools, and the establishment in their places of schools on the reservations where children can live in their customary surroundings and be taught those things which will make it possible for them to earn an honest living upon their own land.

The employment of Indians has proved successful. Many hundreds have been employed upon railways and the irrigation works being constructed by the Government. No single idea is more important for the Indian to learn than that of the necessity of work. As long as he is a mere dependent it is difficult, if not impossible, to make him appreciate the need of individual effort, but until he does appreciate this need he can not perform the duties of citizenship which are placed upon him as soon as he is allotted his land.

Patents in fee are being given to Indians whenever in individual cases it is shown that the Indian is capable of caring for his own property. These patents will not be issued, except after such investigation by the local agent as will give the department all necessary information upon which to determine the competency or incompetency of the individual. The degree of competency is not placed too high, but it must be sufficient to justify the department in believing that the Indian will be able to so manage his own property as to avoid being swindled in disposing of it and thus becoming a public charge. Every competent Indian should receive his patent in fee and assume the full obligations of citizenship, and the department endeavors to prevent any competent Indian from shirking this responsibility.

The irrigation work upon various reservations is proceeding satisfactorily so far as the work itself is concerned, but there is, and necessarily will be, great difficulty in teaching the Indian agriculture upon the irrigated areas. In most cases he is not accustomed to individual ownership of land. He dislikes confinement to a small farm, and finds both irksome and unintelligible a system of agriculture which compels him to intensively cultivate 10, 20, or 40 acres.

The local schools which are teaching the ordinary rudiments of agriculture will be far more helpful to Indians living upon irrigated lands than the higher education received in the present nonreservation schools.

The conditions on the different reservations are, on the whole, exceedingly good. There has been vigorous enforcement of the laws against the introduction and use of liquor; careful study has been made of sanitary conditions, and special efforts are being made to provide homes and schoolhouses that will prevent the spread of tuberculosis. The method of inspection has made it possible to readily and thoroughly examine all complaints. There have been no outbreaks, and the Utes who left their reservation in Utah have voluntarily returned to their own reservation. The questions that arose in the Kickapoo tribe between those who had gone to Mexico and those who remained in New Mexico were fortunately amicably settled, and the division of the fund appropriated by Congress for the tribe was agreed to at a council of all the Indians, held in New

Mexico. The only remaining difficulty with the Kickapoo question is that of clearing the titles of many of the allotments, which have been clouded by the action of certain white men who have endeavored to acquire, contrary to law, many of these allotments. Actions have been brought in Oklahoma to clear these titles, and the rights and the properties of the Indians will be safeguarded as far as the law permits.

FIVE CIVILIZED TRIBES.

LANDS.

The work accomplished in the old Indian Territory, now a portion of the State of Oklahoma, during the last fiscal year is shown very largely in the printed reports of the Commissioner to the Five Civilized Tribes; the United States Indian agent, Union Agency; superintendent of schools; supervisor of schools of the Creek and Seminole nations; supervisor of schools of the Choctaw Nation; supervisor of schools of the Cherokee Nation; supervisor of schools of the Chickasaw Nation; and supervisor of mines on the segregated coal lands. The report of the Commissioner of Indian Affairs also gives a brief synopsis of much of the work accomplished during the year.

In my report last year I called attention to the fact that by the advent of statehood many questions of law and policy had arisen, and I also call attention to some of the problems presented. During the last fiscal year and up to the present time many and varied have been such questions affecting the property of the Five Civilized Tribes, as well as the problems of the proper policy and plans to be instituted and carried out in order that the acts of Congress affecting the status of the members of these tribes, as well as their property, might be properly enforced.

Since my last report the most radical change in the status of much of the property of the Indians of the Five Civilized Tribes was brought about by an act of Congress approved May 27, 1908, entitled "An act for the removal of restrictions from part of the lands of allottees of the Five Civilized Tribes, and for other purposes," commonly known as the "restriction bill." The first section of the bill relates to the removal of restriction on the alienation of lands allotted to members of the Five Civilized Tribes in Oklahoma, and removes the restrictions on all lands allotted to intermarried whites, freedmen, and mixed-blood Indians having less than one-half Indian blood, including minors. It also removes the restrictions on all lands allotted to members of said tribes of mixed Indian blood having one-half or more Indian blood and less than three-fourths Indian blood, except their homesteads.

Restrictions on the alienation of homesteads of allottees enrolled as mixed bloods, having one-half or more Indian blood, including minors, are not removed, nor on any of the lands allotted to those enrolled as of three-fourths or more Indian blood, including minors, and these lands are not subject to sale, power of attorney, or other incumbrance, prior to April 26, 1931, except that the Secretary of the Interior may remove the restrictions from any such lands wholly or in part.

The classes from which restrictions are removed are shown in the following table, as well as approximately the number of allottees and number of acres of land affected:

Classes from which restrictions have been removed.

	Number of allottees.	Number of acres.
Choctaws and Chickasaws:		
Less than one-half Indian blood.....	11,048	8,535,300
One-half and less than three-fourths (except homesteads).....	2,690	430,400
Intermarried whites.....	2,220	355,200
Freedmen.....	10,664	426,560
Total.....	26,622	4,747,520
Cherokees:		
Less than one-half Indian blood.....	24,809	2,728,900
One-half and less than three-fourths (except homesteads).....	3,248	227,300
Intermarried whites.....	286	11,440
Freedmen.....	4,925	197,000
Total.....	33,268	3,164,790
Creeks:		
Less than one-half Indian blood.....	8,048	121,920
One-half and less than three-fourths (except homesteads).....		
Intermarried whites.....	6,807	272,280
Freedmen.....	9,855	394,200
Total.....	34,700	688,400
Seminoles:		
Less than one-half Indian blood.....	242	29,040
One-half and less than three-fourths (except homesteads).....	165	19,800
Intermarried whites.....	968	39,440
Freedmen.....	1,375	88,280
Total.....	3,650	106,560
Total:		
Less than one-half Indian blood.....	39,147	6,415,310
One-half and less than three-fourths (except homesteads).....	6,103	677,560
Intermarried whites.....	2,506	366,640
Freedmen.....	23,364	935,280
Grand total under this law.....	71,120	8,394,790

Up to the time the bill was passed restrictions had been removed heretofore by the Secretary of the Interior on the alienation of 838,200 acres.

By the act of April 21, 1904 (33 Stat. L., 189), the restrictions were removed on the alienation of lands allotted to intermarried whites and freedmen, except homesteads, and except Choctaw and Chickasaw freedmen. Under the law as it existed at the time the bill was passed the allotments of Choctaw and Chickasaw freedmen were homesteads, and consequently the act of April 21, 1904, did not apply to them.

The restrictions on the alienation of all the lands allotted to members of the Creek Nation, except a 40-acre homestead in each instance, and except full bloods, were removed by operation of law on August 7, 1907, as the five-year limitation within which the lands could be alienated expired on that date. There are no intermarried whites on the rolls in either the Creek or Seminole Nation.

In the old Indian Territory there are about 19,600,000 acres, and under the act of May 27, 1908, there was relieved from restriction an excess of 8,394,790 acres. This, together with land rendered alienable under former legislation, makes a total of approximately 11,000,000 acres from which the restrictions have now been removed. Restrictions have been retained upon all lands of three-fourths or more and full-blood Indians and the homesteads of all persons who have one-half or more of Indian blood, it being recognized that such persons were still entitled to the protection which such restriction affords.

It is a wise policy, with proper safeguards, to require the wards of the Government who have been made citizens to assume as soon as they properly can the full obligation of citizenship. There are in the Five Civilized Tribes 30,244 citizens of three-fourths or more Indian blood and 6,829 of one-half to three-fourths Indian blood. All lands allotted to those of the first class and that allotted to the second class as homesteads remain inalienable except where the restrictions have been removed in accordance with the provisions of previous acts of Congress. There remain inalienable approximately 6,000,000 acres of allotted lands in the Five Civilized Tribes. Of the unallotted lands which are not subject to sale, there are in round numbers about 2,100,000 acres.

Under section 1, however, of the act of May 27, 1908, certain restricted lands may be subject to alienation under such rules and regulations as the Secretary of the Interior may prescribe. The rights of minors with regard to their restricted lands are safeguarded by a provision in said act authorizing the Secretary of the Interior, under rules and regulations to be prescribed by him, to appoint such local representatives within the State of Oklahoma as he may deem necessary; to inquire into and investigate the conduct of guardians or curators having in charge the estates of such minors, etc. There is also a provision that no restricted lands of living minors shall be sold

or encumbered, except by leases authorized by law by order of the court or otherwise.

Appropriations of \$90,000 and \$50,000 were made to enable the Secretary of the Interior and the Department of Justice to carry out the provisions of the law referred to and protect the rights of the Indians and the freedmen, without cost to them, in the disposition of their lands and to set aside any illegal transfers attempted before the removal of restrictions. Immediately after the passage of said act I directed the Assistant Secretary of the Interior, the Assistant Attorney-General for the Interior Department, and a representative from the office of the Commissioner of Indian Affairs to go among the Five Civilized Tribes in order to more fully acquaint the department with the conditions there, preparatory to the preparing of such rules and regulations as might be necessary in order to carry out the provisions of the act referred to.

After such investigation a set of rules and regulations, under date of June 20, 1908, governing appointees made by me under said act, and the leasing of restricted lands, as well as the removal of restrictions, was promulgated. For convenience in administering said law, the old Indian Territory, which consists of 44 counties, was divided into 15 districts, and I appointed district agents for each district, and provided offices for them within their respective districts, and required that the offices should be kept open from 8.30 a. m. to 5 p. m. each day, Sundays and legal holidays excepted, and all counsel and advice desired by allottees concerning deeds, leases, and other instruments are furnished by such agents. Each district agent gives his entire time to his official duties. The agents are also directed to visit different localities for the purpose of procuring information and making necessary investigations as the law provides and as he is directed. They also are required to examine the records of each county within their respective districts at least once each month, for the purpose of ascertaining the nature of transactions involving all lands and estates of all minor allottees, and also of restricted lands of adults. These agents report at the end of each month the work performed during such period. Special reports are made concerning any apparently illegal transaction involving the estates of allotments or allottees. Adult members of the Five Civilized Tribes, whose allotments can not be sold or encumbered, except after removal of restrictions therefrom by the Secretary of the Interior as directed in said law, and who desire to have their restrictions removed from all or part of such allotments, are required to apply to the United States Indian agent, Union Agency, through the district agent of the district in which the applicant resides, the application to be made on forms which have been prescribed and which are furnished on application to the party desiring such restrictions removed.

The classes of restricted lands to which the provisions of law and the regulations promulgated apply are as follows: Homesteads of adult mixed-blood allottees having half or more than half and less than three-fourths Indian blood; all allotted lands of the adult mixed blood of three-fourths or more Indian blood; all allotted lands of adult full-blood allottees.

When an application is made full investigation, including a personal interview with the applicant, is required. If from this investigation the Secretary of the Interior finds that any applicant for the removal of restrictions should have the unrestricted control of his allotments, the restrictions, wholly or in part, without conditions, are removed. When, however, it is found to be for the best interest of any applicant that all or part of his restricted lands should be sold with conditions concerning terms of sale and disposal of proceeds, the restrictions are removed and become effective only with the execution of the deed by said applicant to the purchaser. Before said deed is executed the designated tract or tracts of land is to be sold upon such terms as may be in each case specifically directed. As to the manner of conducting said sales and the disposition of the proceeds derived therefrom, attention is invited to the rules and regulations heretofore referred to.

It is gratifying to note that the representatives appointed by me were gladly received by most all classes of citizens. The Indians were particularly anxious to learn about the new laws, frequently asking them to address meetings, which were largely attended by the full-blood element.

A great deal of attention has been given to certain recalcitrant Indians of the Creek and Cherokee tribes, those of the Creek Nation being known as the "Crazy Snake" faction and those of the Cherokee Nation being known as the "Night Hawk" element. As evidence of the good work that is being done in the various districts and of the esteem and gratitude which the Indians have for the influence of the department in securing the law which brought about the appointment of the district agents, the Creek and Choctaw councils have expressed their feelings in resolutions commending the work of the department and asking for a continuance of the system for next year.

The department notes with a great deal of pleasure that most of the probate judges having charge of the minors' estates within the districts have not only expressed their entire willingness to cooperate in every way with the department and the district agents for the mutual benefit of the Indian citizens, but are cooperating and calling upon the agents in the various districts to assist them relative to the proper handling of minors' estates. A kindly feeling exists between most of the district agents and county judges, and many of the judges

have by word and letter expressed their appreciation of the assistance given them by these departmental officials, and a very great reform is being accomplished in the manner in which curators' and guardianship matters are being handled. In the Choctaw and Chickasaw nations, especially, a class of so-called "professional guardians" have been very prodigal of all the estates intrusted to them, as will appear from some of the reports of the agents. The estates of minors for whom they are guardians have been found to be in a most deplorable condition. As an example of the manner in which these curators have conducted the estates of their wards, attention is called to the following extract compiled from the reports of 18 estates of minor citizens of the Choctaw and Chickasaw nations. The total amount received as rentals and income on these estates during the last year was reported by the curator as \$1,378.28, and the disbursements were as follows:

Schooling	\$10.00
Maintenance	286.20
Interest on two previous annual reports passed on by the United States court	160.76
Amount due curators	1,458.06

These 18 cases were not culled out because they were particularly bad, but were taken from the probate dockets at random and may therefore be considered as a fair sample of the manner in which many of the estates had been handled by this class of guardians. It will be noticed that the indebtedness exceeds the income, in spite of the fact that each of these minors have received 320 acres of average allotable land in the Choctaw Nation.

The saving made to individual Indians in assisting the court relative to the guardianship matters, in seeing to it that proper consideration is paid when inherited lands are sold, and assisting the Indians in the matter of leasing contracts on unrestricted lands or tracts not requiring the approval of the department, has been enormous. It has been estimated that during the time these district agents have been assisting in this work there has been saved to the Five Civilized Tribes some \$400,000. The result of this work has inspired a spirit of confidence and the Indians do not hesitate to call upon these agents for advice. The faith placed in them produced many good results. Among them, and perhaps of the most importance, are that it assists the Indian in his business transactions and teaches him that he must be careful in such matters; and it also relieves the various offices of the department of a great deal of correspondence which would accomplish but very little, it having been found by experience to be impossible to advise many Indians by letter and have them follow instructions.

More than 2,000 applications for the removal of restrictions have been filed since July 27, 1908. Each of these requires careful investigation at the hands of the district agent, and it has been the plan to have the district agents become personally acquainted with the applicant and to find out his needs and necessities. In almost every instance the agent recommends that if restrictions are removed and the land sold that it be sold under the supervision of the department. The proceeds of such sales are delivered to the allottees for the making of necessary improvements or for the purchase of such supplies as may be needed for the support and comfort of the family. Thus by careful counseling and advising those making application and assisting them in the wise expenditure of their moneys for improvements, it is believed that these agents will develop into potent educational factors and redound to the great benefit of these Indians.

There are approximately 30,000 Indians of the Five Civilized Tribes who still have restricted lands, and about 15,000 minors and other classes that properly come within the jurisdiction of the district agent. Most of these minor citizens reside in 44 counties of the State of Oklahoma and are under the jurisdiction of the county courts. With but few exceptions the relations with the various county judges with whom the various offices of the department have been associated have been most cordial and most all voiced the sentiment that this work as yet is only in its infancy, and expressed confidence that the assistance of these representatives of the department is and will be absolutely necessary to aid and supplement the work of the probate courts.

In my last report I called attention to the fact that under the laws the transfer of land by the Indian whose restrictions had not been removed was positively prohibited, but there were persons who were taking deeds and only paying a very small fraction of the real value to the Indians. During the past summer investigations have been made relative to these transactions and as a result suits have been brought or directed involving more than 23,000 tracts of land covered by illegal instruments of conveyance. In a large number of cases the lands obtained by these illegal instruments and deeds have been reconveyed to the Indians from whom they were received.

Attention is again called to the fact that in the Creek Nation many suits are still pending to set aside a large number of deeds for town lots. Since the bringing of these suits settlement has been made for \$10,000 for the land on which Kendall College is now situated. Other offers of settlement are now under consideration.

In relation to insane persons not Indians, the contract entered into with St. Vincent's Institution for the Insane, in St. Louis County, Mo., expired on June 30, 1908, at which time the patients, 80 in number, were turned over to the state authorities of Oklahoma.

OSAGE RESERVATION.

The commission allotting the lands of the Osage Reservation is still engaged in this work. On April 28, 1908, the tribal roll, which contains the names of 2,230 persons, of whom all but one are entitled to allotments, was approved.

SCHOOLS.

The report of the superintendent of schools, as well as the various supervisors under him, is published in connection with the annual report of the Commissioner to the Five Civilized Tribes, and shows very satisfactory progress made and results obtained during the year. Data relating to the schools are given also in the report of the Commissioner of Indian Affairs.

It appears that the Indians are manifesting a more lively interest than ever before in the education of their children. The boarding schools are all crowded. Since tribal relations are broken up, and the Indian being thrown very largely upon his own resources, the need of individual education and training has become more and more apparent. The full-blood Indians when associated with white children in schools easily become discouraged in their work. They are naturally bashful, timid, and diffident, especially in the presence of white persons. For these reasons, among others, the Government should hereafter give special attention to the education of the full-blood. During the year ending June 30, 1908, there were maintained 45 more day schools from tribal funds, 379 more day schools from the congressional appropriation, and 2 more day schools from surplus court fees than were maintained during the fiscal year ending June 30, 1907. There were also enrolled 12,074 more pupils during the year 1908 than during the previous fiscal year. The former Indian Territory, since statehood, has been divided into school districts, and those districts having a reasonable amount of taxable property are preparing to build schoolhouses by issuing bonds. These districts, however, will have very little money for conducting schools until the amount of their taxable property can be determined and taxes levied and collected for school purposes.

The department has been cooperating with the state authorities concerning the management of the schools for the present year, and the agreement approved by me relative to such cooperation received the unanimous indorsement of the legislature of the State of Oklahoma. A copy of the agreement will be found in the report of the superintendent of schools and the annual report of the Commissioner of Indian Affairs.

Those districts having sufficient taxable property to bear the expense of their own schools should do so, but many districts, especially

those having a large Indian population, have at the present time comparatively little taxable property, and therefore will be able to raise but a very small amount of money by taxation. These distinctly Indian neighborhoods should, in my opinion, receive special aid and encouragement from the Government. The Indian boys and girls, being all owners of land, and a very large majority of the white boys being farmers, there has been an endeavor to give some special attention to the teaching of practical agriculture.

The instructions which the teachers receive at the summer normals have enabled them to accomplish some good results, as is found in the fact that some of the Indian boys are becoming interested in the study of soils, and are awakening to a realization of the fact that the land possesses many good qualities of genuine worth. One thousand two hundred teachers attended the summer normals that were conducted during the month of June. These normals were all conducted in strict accordance with the laws of Oklahoma, and teachers passing the examination at the close of the normal were given certificates by the state and by the federal school officials.

With relation to the future of the schools it is difficult to make any definite recommendation, for the reason that instead of building up a system of schools it is realized that they must be gradually abolished, as far as any Government supervision over them is concerned. In the natural course of events a state school system will supplant the one in operation at the present time. The act of Congress now in force provides that the Secretary of the Interior shall have the right to continue the tribal schools until a State is formed and ready to take charge of the education of the children. The state schools must be sustained by local taxation, but inasmuch as most of the lands of full-blood Indians are not subject to taxation, it will be impossible for the State to provide proper educational facilities for the full-blood children for some time to come. The full bloods should therefore receive special attention in the future, to the end that they may be prepared to understand and appreciate their rights and duties as citizens, and be prepared to properly manage and conserve their property interests.

In addition to 1,421 day schools provided for during the past year, there were 35 boarding schools maintained. The attendance at the Indian boarding schools during the year just closed has been the best in their history. It is claimed that an Indian child puts forth greater effort in the boarding schools than in the mixed day schools, for the reason that he does not feel the embarrassment among his own people that he feels among the whites, and a very large percentage of the attendants at the day schools are white children. Statistics of enrollment, average attendance, months of school, amount paid teachers, amount paid for supplies, etc., of the various schools will

be found in a table submitted by the superintendent of schools and printed in connection with his annual report and the annual report of the Commissioner of Indian Affairs. The instructions given by the department to the persons managing the day schools were to the effect that these schools should be conducted, as far as possible, in the interest of full-blood children, and, other things being equal, they should receive preference in enrollment.

COAL LANDS.

The printed reports of the Commissioner to the Five Civilized Tribes, United States Indian agent, Union Agency, supervisor of mines and mining, and trustees of the Choctaw and Chickasaw nations for the year ending June 30, 1908, are referred to for a detailed statement showing the status of the coal and asphalt lands within the old Indian Territory.

There has been very little change in the condition of the segregated coal lands belonging to the Choctaw and Chickasaw nations since my last report. Three new mines have been opened during the year, making the present number of openings on said lands 94. The number of accidents has decreased. The ventilation of the mines has been in compliance with the law, except in a few instances, which cases were remedied when the matter was brought to the attention of the operators. The total value of coal produced during the year ending June 30, 1908, was \$5,815,700.98, representing 2,780,649 tons, the average selling price being \$2.09 per ton. The production of coke during the year was 7,868 tons, the average selling price being \$4.51 per ton.

One lease, covering 960 acres, was canceled by the department during the year. One thousand five hundred and eight tons of asphalt was mined during the year. The royalty received during the fiscal year ending June 30, 1908, on coal was \$270,351.62; on asphalt \$2,845.20. Five assignments of leases have been approved during the year.

In my last report I referred to the investigations being made of the 338,352 acres of unleased coal lands to determine the locality and character of the underlying coal. Since November, 1907, two drilling outfits have been in operation under the supervision of the supervisor of mines and a representative of the Geological Survey, and to June 30, 1908, 20 holes of depths ranging from 175 to 1,500 feet have been drilled on the land to ascertain the depth, thickness, and quality of coal veins, and a complete record of all drilling is being preserved.

I recommended last year that a law be passed authorizing the sale of the surface of said lands, giving my reasons therefor. Since that time nothing has come before the department that would justify any change in my views relative to the opinion expressed therein. I

also suggested in my last report how the coal might be handled or leased, etc. I therefore renew my recommendations made in said report concerning the same.

TIMBER LAND.

There has been practically no change in the status of the timber lands belonging to the Indians since my last report, and I have had no sufficient reason presented to me that would justify any change in my views relative to the recommendation made in said report concerning the 2,000,000 acres in the southeastern part of the old Indian Territory.

The policy expressed in my last report relative to said timbered land has been continued. I therefore renew my recommendation concerning the same as expressed in last year's report that this area be purchased from the Indians and be reserved as a national forest.

OIL.

In my report for the fiscal year ending June 30, 1907, I called attention to the remarkable increase in the production of oil in the Territory and to the fact that it had been impossible for transportation companies to remove it as fast as produced. Two large trunk lines, built by the Gulf and Texas companies from the Glen Pool to the Gulf of Mexico, were completed during the year, and other small additional lines. The work in connection with oil leases at the close of the fiscal year was in splendid condition, there being but 549 leases pending in the office of the United States Indian agent, Union Agency, and 516 pending in the office of the Commissioner of Indian Affairs and the Secretary's office, as against 5,009 at the close of the previous year.

During the year there was submitted to the department for consideration a total of 7,597 leases. Up to June 30, 1908, there has been filed a total of 17,727 mineral leases, almost entirely oil leases. Of those considered by the department 10,525 had been approved, some of which have since been canceled, and 6,137 disapproved. Statements showing in detail the work during the fiscal year and the status of oil leases are embodied in the report of the United States Indian agent, Union Agency, which is printed with the report of the Commissioner to the Five Civilized Tribes, and the report of the Commissioner of Indian Affairs.

On April 20, 1908, the department modified its rules, regulations, and forms to a considerable extent, making the minimum rate of royalty $12\frac{1}{2}$ per cent for oil instead of 10 per cent, and the terms of leases of adult citizens to be five years, and so long thereafter as oil, gas, or other mineral may be found in paying quantities, and also provided that by proper stipulation the 10 per cent leases on earlier

forms might be changed to conform to the new regulations by increasing the royalty. Also provision was made for the assignment of leases providing how they might come within the regulations of April 20, 1908, upon a showing of the assignee company similar to the one it would be required to make if it were an original lessee.

There was marketed during the fiscal year ending June 30, 1908, 41,101,000 barrels of oil; the royalty collected by the United States Indian agent during the year on account of oil and gas was \$1,692,627.55. The oil and gas operations on the Osage Reservation were conducted under leases covering 680,000 acres. Under provisions of the existing agreement with the Osage Indians all mineral is reserved to the tribe for a period of twenty-five years; therefore all royalties and proceeds arising from oil and gas operations are placed to the credit of the tribe. There were on June 30, 1908, 867 oil wells and 74 producing gas wells on said reservation. Of said gas wells 30 are utilized at a royalty of \$100 per annum paid. The remaining gas wells are used for development of leases without payment of royalties or are shut in as not being available for commercial use.

There was produced and run during the fiscal year ending June 30, 1908, from the Osage Reservation 4,773,689.44 barrels of oil, one-eighth of which was credited to the Osage Nation as royalty, the proceeds amounting to \$243,610.36. The royalty from gas wells aggregated \$3,125.

It is estimated that on July 1, 1908, there were approximately 36,000,000 barrels of oil held in storage within the limits of the Creek and Cherokee nations.

There has been a very great change in the pipe-line conditions since the creation of the State of Oklahoma and the removal of restrictions from so many allotments.

The law under which pipe-line permits were granted authorized the giving of a permit for twenty years with a renewal for twenty more under conditions to be imposed by the Secretary of the Interior. As long as the whole Territory was under the control of the Interior Department these regulations and the conditions of the law could be readily enforced. Under the present conditions there is grave doubt as to whether effective regulations or control can be exercised.

The State of Oklahoma now controls the highways and can impose such conditions as its legislature sees fit upon the corporations or individuals who may operate and build lines. There is no conflict of authority between the Federal Government and the State on this subject, for the reason that the Federal Government, through the Interior Department, has to do only with the restricted Indian lands, and whatever permit or easement that it grants under the law can apply only to such lands.

I am now giving careful consideration to these conditions for the purpose of determining whether there should be any change in the regulations or in the policy of the department hitherto carried out. It is clear that the work of the department thus far, through its regulations upon leasing and upon the pipe lines, has been of direct benefit to the owners of all lands, both Indians and others, but it may be that the new conditions that have arisen will require some change in the method of dealing with the remaining restricted lands.

PENSIONS.

During the entire year ending June 30, 1908, the total number of pensioners on the roll was 1,006,053. At the close of the year there were on the roll 951,687 pensioners—658,071 soldiers and sailors, 293,106 widows and orphans, and 510 army nurses. The gains to the roll during the year were 37,609 new pensioners and 1,073 restorations and renewals, a total of 38,682. Of this number, 339 were pensioned by special acts of Congress. The losses to the roll during the same time were 50,676 by death and 3,690 from other causes, a total of 54,366. The net loss for the year, therefore, was 15,684.

The number of deaths of soldier and sailor pensioners of the civil war for the year was 34,333. The pensioners on the roll June 30, 1908, are classified as follows:

Pensioners on roll June 30, 1908.

Revolutionary war:	
Daughters	2
War of 1812:	
Widows	471
Indian wars:	
Survivors	1,820
Widows	3,018
War with Mexico:	
Survivors	2,932
Widows	6,914
Civil war:	
General law—	
Invalids	142,044
Widows	75,515
Minor children	541
Mothers	3,688
Fathers	656
Brothers, sisters, sons, and daughters	240
Helpless children	528
Act of June 27, 1890—	
Invalids	140,600
Widows	
Minor children	3,954
Helpless children	295
Act of February 6, 1907	338,341
Act of April 19, 1908, widows	188,445
Army nurses	510

War with Spain:	
Invalids	20,548
Widows	1,145
Minor children	331
Mothers	3,006
Fathers	586
Brothers and sisters	7
Helpless children	2
Regular establishment:	
Invalids	11,786
Widows	2,580
Minor children	120
Mothers	871
Fathers	139
Brothers and sisters	5
Helpless children	7
Total	951,687

The cases referred to above under the head of "Regular establishment" embrace those in which the disability originated in service in the Army, Navy, or Marine Corps, between the close of the civil war and the commencement of the war with Spain, and since the close of the war with Spain and the insurrection in the Philippine Islands.

The last surviving widow of the Revolutionary war died November 11, 1906. The names of two daughters who are pensioned by special act of Congress are all that roll now contains.

The last pensioned soldier of the war of 1812 died May 13, 1905, but the roll contains the names of 471 widows of that war.

The act of February 6, 1907, grants pensions to persons who served ninety days or more in the army or navy during the civil war, or sixty days in the Mexican war, and were honorably discharged, as follows: \$12 per month when 62 years of age; \$15 per month when 70 years of age; and \$20 per month when 75 years of age.

From the date of its approval to June 30, 1908, 431,113 applications were filed for pensions or increase of pensions under this act, and all but 16,909 of them had been disposed of.

By readjustment of the clerical force of the Pension Bureau, the tremendous increase caused by this act was taken care of in such a way that the work of the bureau is now, and for several months has been, current.

The benefits derived from the act of April 19, 1908, are that under the first section, widows, minor children under the age of 16 years, and helpless children, as defined by existing law, now on the roll, or who may thereafter be placed thereon, who are receiving a less rate, are advanced to \$12 per month, and, under the second section, widows who were married prior to June 27, 1890, to persons who served ninety

days or more in the army or navy during the civil war and were honorably discharged are allowed \$12 per month without regard to their pecuniary condition; in other words, they are not required to show dependence.

Under the first section the rate has already been increased without any expense or inconvenience to them whatever to 198,260 widows, 4,017 minors, and 300 helpless children; in all, 202,577; and under the second section 22,115 applications have been received.

Final action was taken during the year in 387,992 claims, of which 325,140 were approved for allowance, 59,449 for rejection, and 3,403 approved for allowance, but no certificates issued thereon because no benefits would accrue to applicants.

The number of claims pending July 1, 1907, was 356,181, and there were filed during the year 185,622 new applications of all kinds. At the close of the year 123,483 claims were pending.

The appropriation for the payment of pensions for the fiscal year was \$145,000,000; deficiency appropriations and repayments to the appropriation made the amount available for pensions \$155,003,390.71. The amount paid out for pensions was \$153,093,086.27, and the amount expended for salaries and other operating expenses was \$2,800,963.36, making a total expenditure of \$155,894,049.63. While the amount expended for pensions was the largest since 1893, the operating expenses show a decrease of \$2,066,771.06.

Since 1861 there have been granted by special acts of Congress 23,316 pensions and increase of pensions, of which 14,607 were on the rolls at the close of the fiscal year, with an annual value of \$4,211,332, a little more than one-half of which amount is in excess of what could have been granted under the general laws.

The number of special acts granting pensions and increase of pensions passed during the first session of the Sixtieth Congress was 3,579. The increase in the annual expenditures resulting from these special acts was \$535,368.

During the year 113 indictments were found and 101 convictions secured on account of violation of the pension laws. There were 8 acquittals, 30 cases were dismissed, 2 civil suits were instituted, and \$7,698 was recovered. Of the persons convicted, only 10 are believed to have had any military or naval service.

APPEALS IN PENSION AND BOUNTY LAND CLAIMS.

Prior to January 1, 1881, no docket numbers were given or kept in relation to appeals in pension and bounty land claims. After January 1, 1881, such appeals were numbered and docketed consecutively during the year, commencing with docket No. 1 each successive year until January 1, 1889.

From January 1, 1881, to December 31, 1889, there were filed and docketed in this way 13,534 appeals. Beginning January 1, 1889, the number of appeals have been consecutively numbered and docketed, commencing with No. 1 to the present time, and on June 30, 1908, the last docket number of merit appeals was 124,414. Since January 1, 1889, a separate docket has been kept for fee appeals, commencing with docket No. 1 and numbered consecutively to the present time, and on June 30, 1908, the last docket number of fee appeals was 8,536. The fee appeals filed prior to January 1, 1889, were 279. Since June 5, 1905, there has been kept a separate docket of appeals in claims filed under the act of March 3, 1899 (division of pensions). The last docket number of this class of claims on appeal was, on June 30, 1908, 887.

The following table shows the number of appeals filed since serial docket numbers have been kept:

From January 1, 1881, to June 1, 1889, merit appeals-----	13,534
From January 1, 1881, to January 1, 1889, fee appeals-----	279
From January 1, 1889, to June 30, 1908, merit appeals-----	124,414
From January 1, 1889, to June 30, 1908, fee appeals-----	8,536
From June 5, 1905, to June 30, 1908, division of pension appeals-----	887
 Total -----	 147,650

Having ascertained that this enormous docket of appeals had not for many years been checked over and verified, I caused the same to be done and all cases brought forward where the docket showed that complete disposition had not been made of the same.

The following table shows the number of appeals and motions for reconsideration pending at the beginning of the fiscal year, July 1, 1907, those filed during the fiscal year ending June 30, 1908, their disposition, and the number pending July 1, 1908:

Pension appeals pending.

	Pending July 1, 1907.	Filed during year.	Total.	Disposed of.	Pending July 1, 1908.
Original merit appeals	720	6,050	6,770	6,270	500
Fee appeals	5	59	64	61	3
Motions for reconsideration.....	11	136	147	143	4
Total	736	6,245	6,981	6,474	507

Two hundred and twenty-two cases on appeal were, upon careful examination, returned to the bureau for further action and report. About one-half of these were returned at the request of the commissioner for further consideration and readjudication before making a final report on the pending appeal. Other cases were returned on review by the board for bureau action on new evidence filed, for test

medical examination or special examination, or for various reasons the claims were deemed improperly adjudicated. During the fiscal year 584 appeals and motions were dismissed. The Commissioner of Pensions reported in 340 cases of such dismissals that upon reconsideration the adverse action taken by the bureau had been receded from and that upon dismissal of the appeal the contention of the appellant would be allowed. The department after considering the appeal decided that the action proposed by the bureau was warranted under the law and the evidence, and the appeal was dismissed, and the papers were promptly returned to the bureau for final and favorable adjudication.

Other appeals were dismissed for the reason that they were filed by attorneys without proper authority, duplicates of former appeals not filed within the limit of time (one year from the date of the adverse action by the bureau), and in other respects altogether informal and in absolute disregard of the rules of practice.

Deducting the dismissals (584) and the cancellations (7 duplicates), final decisions were rendered in 5,883 cases, of which 394 were reversals. As compared with the preceding year, it is observed that there has been a reduction of the number of appeals filed. In the fiscal year ending June 30, 1907, there were filed 9,121 appeals and motions, while, as already stated, there were filed during the last fiscal year 6,245, a reduction of 2,876.

Since June 30, 1907, there has been quite a reduction in the working force of the board. In August, 1907, all of the members of the board of pension appeals known as temporary members (except one, since transferred) were transferred or detailed elsewhere, so that, by transfers and resignations, there has been a reduction of 12 members of the board; also 8 typewriters have been transferred elsewhere.

Unless the appeals are largely increased, it is expected that the present force will keep pace with the current work.

Volume 17 of departmental decisions in appealed pension and bounty land claims has been completed and received from the Public Printer. It embraces the most important decisions of a legal and medical character for future reference and guidance. As no digest of pension decisions has been published since 1897, there has been included in this volume the consolidated topical index to decisions found in volumes 9 to 17, inclusive.

PATENT OFFICE.

The volume of business in the Patent Office shows about the usual annual increase in all its branches. The number of applications received was as follows:

Patents	58,527
Design patents	1,091
Reissue patents	207

which makes a total of 59,825 applications for patents of all descriptions filed during the fiscal year, an increase over last year of 2,303. There were 7,467 applications for registration of trademarks; 810 for labels, and 339 for prints, making a total of 8,616. This shows a decrease of 657. The total money receipts from all sources was \$1,874,180.75; the expenditures \$1,608,292.01, and the net surplus \$265,888.74, which has been covered into the Treasury.

The grand total for all years of receipts from all sources over expenditures for salaries and all other expenses is \$6,972,070.38 net. This large sum represents the net earnings of the bureau that have been turned into the Treasury from year to year and has been paid by the inventors almost entirely.

The number of patents granted was 34,003; design patents, 748; reissue patents, 151; trade-marks, 6,135; labels, 636, and prints, 279, or a total of 41,952. The expired patents which became public property numbered 24,270.

Congress at its last session increased the examining force by 33 men and also increased the salaries of all of the examiners. As a result of these increases the pending applications, which were very much in arrears, are now being brought up to date. The Commissioner of Patents informs me that by the end of the year the work of his entire office will be up to date.

The present legislative, executive, and judicial appropriation act, passed at the last session, embraced a provision as follows:

That a commission which is hereby created, to consist of the Secretary of the Interior, the Commissioner of Patents, and the Secretary of the Smithsonian Institution, shall determine which of the models of the Patent Office may be of possible benefit to patentees or of historical value, such models thus selected to be cared for in the New National Museum building; the remainder of said models shall before January first, nineteen hundred and nine, be disposed of by sale, gift, or otherwise, as the Commissioner of Patents, with the approval of the Secretary of the Interior shall determine.

In pursuance of this provision the commission organized on the 29th of May and steps were immediately taken to carry out the provisions of the act. The Commissioner of Patents was authorized to proceed with the details of the disposition of these models. The Commissioner of Patents reports that all of the models, 157,000 in number, have been removed from the Union building. Some of the historical models have been placed on exhibition in the National Museum, and the others, which were deemed of importance as evidence in patent litigation and to aid examiners in searches, have been boxed, labeled, and catalogued and placed in the Patent Office part of the Department of the Interior building until the completion of the New National Museum building, where the law directs they shall be placed. The models were promptly removed and the rent for the space occupied has ceased. The total expense of moving these 157,000

models has been paid for out of the rent appropriated, \$19,500, with a balance of \$7,882.53 saved of said appropriated rent.

During the month of February my attention was directed to a patent, No. 872,936, which it was thought had been obtained by fraudulent means. I instructed the Commissioner of Patents to investigate the matter, with the result that within thirty days after the receipt of the first intimation by me John A. Heany, of York, Pa., an inventor; Henry E. Everding, an attorney of Philadelphia, and Ned W. Barton, an assistant examiner in the Patent Office, were indicted.

Barton, the assistant examiner, has pleaded guilty and been sentenced to the penitentiary for three years. The other defendants are being tried in the criminal court. Bills have been drawn and filed in the United States circuit court for the eastern district of Pennsylvania for the annulment of the patent granted, and two divisional patents of the same.

This is the first case of its kind that has occurred in the one hundred and eighteen years of Patent Office history.

The Commissioner of Patents has ordered such additional safeguards in the filing of papers as should prevent similar frauds hereafter.

The attitude of the employees of the Patent Office in connection with this case was most gratifying. The corps of examiners felt keenly the disgrace that a member of their corps had brought upon himself, but there was not the slightest desire to prevent the most thorough examination or to shield any person. It was recognized that the integrity of the work of the office could only be maintained by the discovery of whatever was wrong and the prevention of its recurrence.

BUREAU OF EDUCATION.

The act of March 2, 1867, provides that the Bureau of Education shall be established—

for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems and methods of teaching as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

The estimates which I have submitted for the year 1910 provide for carrying out these provisions in a more satisfactory manner than is possible with the appropriations hitherto provided.

The bureau is now seriously hampered in its housing. It has invaluable collections of books and documents which are exposed to the danger of loss by fire. There is not sufficient room to carry on its

ordinary work to advantage. The rented building which it has occupied for a generation past is in bad repair and in such insanitary condition that the health of employees is in danger. Time has been lost during the current year by the illness of employees resulting from these conditions. I am accordingly asking for appropriations to cover the cost of rental of larger quarters in a sanitary and fireproof building, together with the cost of fireproof shelving and other necessary furniture, and the expense of removal.

To collect and diffuse such information as is demanded by the educational situation of the present day calls for the employment of experts in various departments of American education, some of them permanently and others occasionally, together with adequate provision for editorial and clerical service, traveling expenses, and related items. The office has only one expert in any branch of American education, namely, the specialist in land-grant college statistics. I am asking at this time for the permanent employment of three experts in other divisions, together with a competent editor, and provision for such special inquiries, reports, and correspondence as the educational needs of the country call for.

The bureau has one of the best special libraries of education in the country—in many respects the best—but very meagerly supported. I am asking for a moderate increase in the provision for this library.

Every effort has been put forth within the past two years to put the bureau into shape to make good use of larger resources and render an efficient service to the country thereby. The library has been pruned by the transfer of 58,000 pieces to the Library of Congress, and the administration of the collection remaining, over 140,000 pieces in all, has been reorganized in close connection with the Library of Congress and with other libraries of education throughout the country. The annual reports have been condensed and brought down to date. Volume I of the report for 1908 has already been read in final page proof. Every effort is making to complete the preparation of the manuscript of Volume II by the 31st of December. Close relations have been established with the education offices of the several States and Territories. A conference of state and territorial superintendents, called together in Washington last February, was attended by 37 out of the 50 such officers invited, and a committee appointed by that conference is now in consultation with this office with reference to improvements in its statistical work. Closer relations have also been cultivated with the state universities and agricultural and mechanical colleges of the country, as well as other educational institutions. The statistical reports of the bureau have been condensed and the blanks for the collection of statistical information have been revised. The issues of the bulletin, begun two years ago, have proved a popular and useful means of furnishing

timely information upon subjects concerning which information is frequently called for. The office force has been reorganized in accordance with the executive order touching such reorganization.

Altogether, the present resources of the office have been economized and utilized with great care in the discharge of the statutory functions of the office. The office has been put into shape to make good use of larger resources; and it will be unable to go much further in meeting the fair and reasonable demands made upon it until such resources are provided. The appropriations for the general work of the bureau, referred to above, are less for the current year than they were ten years ago. A considerable increase in appropriations will be necessary to bring up the arrears of the proper work of this office and put it in a position to make even a good beginning on the growth which it should make to parallel the growth of the educational needs of the country.

It is false economy to fail to provide increased appropriations for the work of the Bureau of Education. This work does not in any way conflict with the educational work of the States, counties, and municipalities. The duty of the federal bureau is to obtain information and give it to the States and smaller subdivisions. In this way the Bureau can be of the greatest assistance to those who are actually conducting the schools under the state laws. The Bureau should be the great central clearing house for collecting educational information—information about the best methods and the best systems—and presenting that information so that each State may select and use what is best suited to its own conditions.

The Commissioner of Education has been in close touch with those officers in the States who are charged with the duty of guiding and conducting educational work. The presidents of the state universities, the school superintendents of both municipalities and counties are in full sympathy with the work of the bureau, and desire that its work may be increased along the lines indicated in the report of the Commissioner of Education.

GEOLOGICAL SURVEY.

In the last few years the Geological Survey has broadened the scope of its work in the classification of the mineral lands of the public domain. At the time of the organization of the Survey the classification intended by Congress was believed to be general in character and such as could be expressed on maps issued for the general information of the people. The present interpretation of the law is that the classification should be more definite, and therefore during the last year the Survey has continued its special field surveys of the coal lands belonging to the Government. The geologic, topographic, and technologic branches of the Survey and the General Land Office have

cooperated in these surveys, which have provided for the classification and valuation of the coal lands and for their prompt segregation from the noncoal lands. A total of 22,700 square miles of coal fields was thus classified during the fiscal year 1907-8, and the valuation of the coal lands, based not only on the geologic field examination but on chemical and physical tests of coal collected from these lands, was reported to the General Land Office.

Geologic branch.—Incidental to the surveys for the classification of coal lands, important results have been secured relating to the stratigraphic and structural relations of the coal fields of the West, and the knowledge of the occurrence and distribution of this most valuable mineral has been greatly increased. Increased demands have also been made on the mining geologists of the Survey for assistance in determining the mineral or nonmineral character of land for which title from the Government is sought.

The goal to be reached in mining geology is the extension of systematic field surveys of all mineral deposits, so that geologic exploration may keep in advance of economic development. The prosecution of detailed areal mapping in all regions where active development of mineral deposits is in progress results in making prospecting less expensive and more efficient and in winning a much larger proportion of the ore deposits wherever the areal and structural relations thus become known, and therefore effects a double economy.

The survey of Alaska was continued under the special appropriation made for work in that Territory. About 20 per cent of the Territory has now been covered by reconnaissance geologic surveys. As the geologic mapping must form the basis for any fundamental study of the laws of occurrence and distribution of the mineral resources, it is evident that with only a fifth of the Territory mapped no comprehensive treatment of the subject of its mineral wealth can yet be attempted. Geologic mapping necessitates the preparation of base maps, which in themselves are indeed among the most valuable results for the purposes of the prospector and the mine operator.

In addition to the demand for the completion of the topographic and geologic reconnaissance surveys there is urgent need for detailed mapping of the important mining districts. Such detailed work costs much more than the reconnaissance work and need be undertaken only in regions that give promise of becoming important producers of mineral wealth. As soon as a district is established as a producer it is economy to cover it by detailed topographic and geologic surveys at once, as the maps and reports then become available when they are most needed by the mine operators.

In the collection of mineral statistics by the Survey the plan of cooperation between the division of geology and the division of mineral resources has been continued with even more satisfactory

results than were obtained during the two preceding years in which this plan has been followed. The value of the mineral products of the United States in the calendar year 1907 exceeded a total of \$2,000,000,000, so that, notwithstanding the financial depression which occurred in the latter part of the year, 1907 will be recorded as one of the most prosperous years in the history of the mining industry. The endeavor to expedite the compilation and publication of the mineral statistics for 1907 resulted in the issue of five chapters and the transmission of twelve others to the printer during the first half of the calendar year 1908, as contrasted with one issued and five others transmitted in the corresponding period last year. In time of publication the chapters issued have averaged one and one-half months ahead of the same reports for the last year.

Topographic branch.—Topographic surveys were made in thirty-two States and Territories, covering 25,658 square miles. Of this amount, 14,949 square miles were surveyed in the public-land States. In addition 6,979 square miles of revision or resurvey were completed, making the total area actually surveyed during the season 32,637 square miles.

In Minnesota the special drainage survey of the ceded Chippewa Indian lands authorized by Congress was completed, 2,385 square miles having been mapped this year. These data will be used as the basis for the making of drainage plans by the Survey as directed by Congress.

In Mississippi an area of 1,200 square miles of swamp land in the Yazoo delta has been topographically surveyed in cooperation with the Tallahatchie drainage commission. This survey has been on the specially large scale of 2,000 feet to the inch, with 5-foot contour interval and with elevations established at the rate of 125 to the square mile. It is expected that these data will be used as a basis for drainage plans and construction by the Tallahatchie commission.

In California work has progressed steadily in mapping the Sacramento Valley, including the tule swamps, in cooperation with the State, 950 square miles having been covered on a special scale of 2 inches to the mile with 5-foot contour interval.

Water-resources branch.—During the last year an effort has been made to maintain as much as possible the investigations of the water resources of the country. The work performed may be divided, as formerly, into three parts: First, the investigation of stream flow and allied problems; second, the investigation of the occurrence, sources, and amounts of underground waters in various portions of the country, and, third, the investigation of the quality of water, both surface and underground. A combination of these three investigations is necessary to afford the data for the determination of water resources required in the appropriation act.

A feature of this work is the cooperation rendered by certain States—Maine, New York, and Pennsylvania making allotments of funds for cooperative investigations of water resources. Ground-water investigations were made in various parts of the country, and investigations of the quality of water involved the collection of 50,000 samples of water and analyses of the mineral contents of 4,800 samples.

The study of the water resources of Alaska, so far as they bear on the problem of placer mining, is well advanced, for, though only a comparatively small area has been actually surveyed hydrographically, the preliminary work in one of the most important placer districts is nearing completion and similar work in another has been well started.

The establishment of local offices in the West for at least a portion of the year has proved to be advantageous, not only in insuring better administration of the field work and in facilitating the discharge of official business, but in encouraging closer relations between the Survey and the public. This has been of special advantage in the work of the water-resources and topographic branches, as it is important to provide for the engineers in any district every possible opportunity to be informed of and to profit by the investigations of the Survey and to assist the Survey in meeting local needs.

Additional emphasis should be placed upon the study of the water resources of the country. Water is essentially a public resource and its uses from the headwaters down are distinctly public, whether they be for the domestic use of our great cities, or development of power, for irrigation, or, finally, for navigation. Furthermore, the questions arising from this great use of water are necessarily not confined to single States. They cover an entire watershed area, and hence in almost every case affect conditions in several States. It is therefore of prime importance that the Federal Government should increase its work of carefully studying water and its uses, so that we may be prepared to devote the public domain to the proper protection of water and provide for its use in such fashion as will best promote the public welfare and prevent the waste, misuse, or monopolization of water by private interests.

Technologic branch.—Another line of investigation was placed under the administration of the Geological Survey in May by authority of the Secretary of the Interior upon the appropriation by Congress of \$150,000 for conducting investigations as to the causes of mine explosions, with a view to increasing safety in mining. The division of mine accidents was created May 22, 1908, and made a part of the technologic branch. The organization of this new work was immediately begun and authority was obtained from the Secretary of War for the use of a part of the old arsenal tract in Pittsburg as an

explosive station. This line of practical research is expected to decrease in some degree the present excessive loss of life in the mines as well as to diminish the waste of coal in mining.

The terrible accidents that have occurred in mines in our own country and abroad during the past year show most clearly the imperative need of most careful, systematic study of the conditions under which mines are being operated.

The appropriations which the Federal Government has made and will be asked to make for this investigation are as nothing when measured by the good which is being accomplished in finding out what methods can be adopted to prevent the loss of life and the many dreadful injuries which are daily occurring in our mines.

The work of the experimental station at Pittsburg meets with the approval and commands the interest of both the miners and the mine owners. They see that this work is being conducted in a thoroughly practical way. The tests and experiments regarding explosives are not mere laboratory tests, but are carried on under conditions identical with those that exist in the coal mines. The result of these experiments will be the standardization of explosives, the establishment of certain methods of mining, and the adoption of safety devices which will be of tremendous advantage to the mining industry.

The other technologic work of the Survey has included analyses and investigations of coals, lignites, and other mineral fuels, designed to prevent waste in mining and to promote their more efficient use by the Government for power and heating purposes; investigations of structural materials belonging to and used by the United States, and engineering and other investigations bearing upon the work of the Reclamation Service, the Isthmian Canal Commission, the Supervising Architect of the Treasury Department, and other branches of the government service having supervision of building and construction.

In January the Director of the Geological Survey submitted to the Senate Committee on Mines and Mining, at my request, a statement relative to the proposed establishment of another bureau in recognition of the mining industry. The part played by the Survey in the development of that industry in the last three decades was reviewed, and the effort was made to suggest legislation that would provide adequately for an increase in the mining work of the Federal Government without duplicating work already authorized. The opinion was expressed that the only true line of cleavage for separating the investigations concerned with the mining industry lies between the pure technology of the industry and those studies which relate to the distribution, occurrence, origin, and production of mineral deposits. Such studies have formed an increasingly important part of the Geological Survey's work since its organization, so that the whole ques-

tion resolves itself into the matter of making adequate provision for the other investigations now being conducted by the technologic branch of the Survey. The value of these investigations has been proved, and their scope may well be expanded along technologic lines without duplicating or overlapping the work of other branches of the survey.

Publications.—The Survey is a bureau of investigation and publication. Its relation to the public demands that the results of the scientific investigations intrusted to it be presented in the form best adapted to serve the purpose of publicity, and that these reports of investigations must be distributed with the greatest possible care and expedition. The current publications therefore furnish an important index to the nature and value of the work.

The publications of the year consisted of 1 annual report, 1 monograph, 2 professional papers, 30 bulletins (one of which was also published in 7 separate chapters), and 13 advance chapters from one other bulletin, 22 water-supply papers, 1 annual report on mineral resources for 1906 (also published in 45 separate chapters), 5 advance chapters from the annual report on mineral resources for 1907, and 9 geologic folios.

During the year 333,705 volumes, 39,389 folios, and 474,868 maps (including 369,521 sold), a total of 847,962, were distributed.

The nation's mineral resources.—The congressional enactment establishing the Geological Survey was inspired by an appreciation of the importance to the nation of its mineral resources. Since then the Survey's investigations have not only contributed largely to the development of the mining industry, especially in the public-land States, but have furnished quantitative data that are available at this time of popular awakening to the needs of national conservation.

The last year has been one of those periods through which any scientific work occasionally passes, in which the specific value and definite usefulness of results accomplished have been brought prominently into public notice. The people in general have learned to appreciate certain applications of the survey's investigations, which heretofore have in large part appealed only to persons who had become familiar with its work by reason of their professions or special interests.

The Survey's most notable contribution to the subject of national conservation during the year was the publication, on the eve of the governors' conference at the White House, of a map of the coal fields of the United States. This map presented both graphically and statistically the extent of the nation's coal reserves. Up to that time it had not been possible to prepare so accurate a map on account of the lack of data regarding the shape and extent of many of the

western coal fields and the quality of their coal, but during the last few years a large amount of such information has been obtained in connection with the classification and valuation of coal lands in the public-land States of the West. In carrying on this work the United States Geological Survey has mapped most of the important coal fields, and has tested many of the coals, so that the information at hand was believed to be sufficiently complete and conservative to warrant its publication.

At the request of the National Conservation Commission similar reports have been made by the Geological Survey on iron ores, petroleum, natural gas, metalliferous ores, phosphate, peat, Alaskan mineral resources, coal waste, waste in structural materials, swamp lands, denudation, water power, ground waters, and water circulation and its control.

RECLAMATION SERVICE.

The operations of the Reclamation Service during the past year have been confined mainly to the continuation of construction upon projects previously approved. Investigations for new projects have been confined mainly to measurement of water supply, which for its proper determination requires observations extending through a long series of years. The construction work has been carried on largely by contract, but construction under direct administration has been undertaken where contractors have failed or where reasonable bids have not been received. As indicating the character and magnitude of construction accomplished, the following table is submitted:

Summary of results of reclamation work from June 30, 1903, to June 30, 1908.

	Quantity.
Area irrigated _____	acres 353, 050
Area under ditch _____	do 978, 365
Farm units _____	5, 959
Bridges _____	648
Length of bridges _____	feet 19, 231
Canals carrying 300 second-feet or over _____	miles 412
Canals carrying between 50 and 300 second-feet _____	do 460
Canals carrying less than 50 second-feet _____	do 1, 508
Cement used _____	barrels 638, 237
Concrete laid _____	cubic yards 772, 804
Dikes and levees built _____	linear feet 296, 938
Earth excavated _____	cubic yards 47, 038, 620
Loose rock excavated _____	do 2, 841, 538
Solid rock excavated _____	do 2, 787, 820
Road constructed _____	miles 374
Riprap laid _____	cubic yards 265, 289
Reservoir capacity completed _____	acre-feet 379, 100
Structures built, costing over \$2,000 _____	312
Structures built, costing between \$500 and \$2,000 _____	481
Structures costing less than \$500 _____	4, 390

		Quantity.
Telephone line built.....	miles.....	874
Telephones in use.....		300
Tunnels built.....		57
Length of tunnels.....	feet.....	82,279
Cost of lands purchased.....		\$1,612,641

Under the provisions of the law the receipts from the sale of public lands are turned into the reclamation fund after certain sums defined by the law have been deducted. The accounts of this fund are adjusted annually at the end of the fiscal year, June 30. The compilation of reports and computations of various charges and deductions usually require about six months in the Land Office and Treasury Department, so that the warrant for any fiscal year does not issue until the 1st of January following, whereupon the fund becomes available for expenditure. The amount of this warrant, however, can be approximately estimated at the close of the fiscal year, and in July careful examination is made of the needs of the various projects and approximate allotments of the funds for the calendar year are tentatively determined upon. By thus announcing the plans and giving instructions about five months in advance, the work can be carried on with greater economy and better continuity of plan.

The date of the availability of the annual increments to the fund makes it convenient and necessary that allotments be made by calendar years rather than fiscal years. This is also in accordance with the convenience and economy of construction work, which, on most of the projects, is much more active in summer than in winter on account of climatic conditions.

In the following table is given a list of the approved irrigation projects of the Reclamation Service, with the area to be reclaimed, the estimated cost of construction, the estimated expenditures to December 31, 1908, and the corresponding per cent of completion at that date:

Approved irrigation projects.

Location.	Project.	Area.	Estimates December 31, 1908.		
			Estimated cost.	Expenditures.	Per cent of completion.
		Acres.			
Arizona	Salt River	240,000	\$7,900,000	\$5,850,000	61.6
Arizona-California	Yuma	92,150	5,680,000	2,875,000	51.0
California	Orland	80,000	1,500,000	168,000	11.2
California-Oregon	Klamath	165,000	5,950,000	1,693,000	28.5
Colorado	Grand Valley.....	50,000	2,500,000	50,000	2.0
Do.....	Uncompahgre	146,000	5,500,000	3,515,000	64.0

Approved irrigation projects—Continued.

Location.	Project.	Area.	Estimated cost.	Estimates December 31, 1908.	
				Expenditures.	Per cent of completion.
		<i>Acres.</i>			
Idaho	Minidoka (gravity)	84,200	1,780,000	1,780,800	100.0
Do	Minidoka (pumping)	49,900	600,000	211,000	35.2
Do	Payette-Boise, South Side Division.	182,000	4,765,000	2,250,000	47.2
Kansas	Garden City	10,656	355,000	355,000	100.0
Montana	Lower Milk River ^a	160,000	6,250,000	250,000	4.0
Do	Huntley	33,000	840,000	840,000	100.0
Do	Sun River, Fort Shaw unit	16,000	480,000	488,000	100.0
Nebraska-Wyoming	North Platte	96,000	4,200,000	3,940,000	93.3
Nevada	Truckee-Carson	100,000	4,390,000	3,951,000	90.0
New Mexico	Carlsbad	20,000	640,000	640,000	100.0
Do	Hondo	10,000	370,000	370,000	100.0
Do	Rio Grande	160,000	8,000,000	65,000	.8
Do	Leasburg unit ^b		210,000	210,000	100.0
North Dakota	Buford-Trenton	12,500	316,000	316,000	100.0
Do	Nesson	18,500	740,000	18,000	4.5
Do	Williston	12,000	474,000	474,000	100.0
North Dakota-Montana	Lower Yellowstone	66,000	2,754,200	2,570,000	82.5
Oregon	Umatilla	20,440	1,208,400	1,065,000	82.0
South Dakota	Belle fourche	100,000	3,400,000	2,000,000	58.8
Utah	Strawberry Valley	60,000	2,880,000	630,000	21.9
Washington	Okanogan	9,000	585,000	455,000	77.8
Do	Sunnyside	99,000	2,253,000	881,000	39.1
Do	Tieton	30,000	1,800,000	987,000	54.8
Do	Wapato	120,000	3,600,000	19,000	5.6
Wyoming	Shoshone	150,000	7,560,000	8,175,000	42.0
	Total	2,292,346	89,431,500	42,091,000	.....

* This does not include the St. Mary project, on which the estimated expenditure is \$257,000.

^b The Leasburg diversion dam will furnish a temporary, intermittent supply to about 20,000 acres, which will be a portion of the Rio Grande project and share in the benefits of the Engle Dam.

An act called the "public irrigation law" passed the legislature of Porto Rico and was approved by the governor on the 18th day of September, 1908. It appropriated \$200,000 for the "preparation of working plans and specifications for the construction of an irrigation system for the district situated approximately between the River Patillas on the east and River Portugues on the west, and irrigable lands on both sides of both rivers, and for the commencement and prosecution of the work of construction thereof, and expenses in connection therewith until such time as sufficient funds shall be available in the treasury from the sale of bonds provided for such purpose by legislative enactment." Provision is made for the issue and sale of \$3,000,000 in 4 per cent bonds to defray the expenses of constructing

the above irrigation works, the cost of which is to be collected by taxation of the lands benefited. The act further provides that—

Immediately upon the approval of this act the engineer heretofore in charge of the survey and study of the said irrigation project, or his successor, as hereinafter provided, shall proceed at once to the completion of the plans and specifications, attaching thereto a descriptive memorial of the works and showing and justifying in full all necessary work to be done and expenses to be incurred in the construction of the said irrigation system, and shall submit the same to the Director of the United States Reclamation Service for report, but in the event of his inability to so act, to one or more engineers selected by said Director of the United States Reclamation Service, provided that the said director, or the engineer or engineers selected by him, shall transmit a general specific report to the governor of Porto Rico touching all matters contained in the memorial and plans and specifications of the engineer in charge of the irrigation works in Porto Rico.

In pursuance of the above law the irrigation engineer of Porto Rico has submitted plans and specifications for an extensive system of irrigation for southern Porto Rico, and arrangements are being made for an examination of the locality of the said works by engineers of the Reclamation Service, at the expense of Porto Rico.

The government of the Philippine Islands has organized a "bureau of public works," and in this bureau a division of irrigation. An annual appropriation of P750,000 is provided for the surveys, plans, and construction of irrigation works, and surveys are now in progress. The governor of the islands has applied for the services of a consulting engineer from the Reclamation Service, and an effort will be made to detail a competent engineer from that service at the proper time at the expense of the Philippine Islands.

SALT RIVER PROJECT, ARIZONA.

This project comprises in the main the construction of a large storage reservoir at the mouth of Tonto Creek on Salt River and the diversion of this water at the head of the valley, about 40 miles to the westward, and its distribution through canals and ditches to about 200,000 acres of very fertile land in the vicinity of Phoenix, Ariz.

The area to be irrigated is far in excess of the water supply, and as the productivity of the land is very great it becomes of first importance that the water supply be utilized and increased as fully as conditions will permit.

Large opportunities for the development of power are incidental to this project and are being used for the principal purpose of pumping water from underground, large quantities of which may thus be obtained for supplementing the supply furnished from the reservoir.

A contract for the large masonry storage dam on upper Salt River was let to James O'Rourke & Company, of Galveston, Tex., in April

1905. Since work began a series of unusual floods have occurred, washing out the protective works of the contractor four successive times and filing in excavated portions of the foundation.

The dam has now reached a height of about 70 feet and some regulation of fluctuation of the river flow can hereafter be undertaken.

One of the great floods which damaged the contractor in November, 1905, also washed out the Arizona dam, which had served to divert water just below the mouth of Verde River into the Arizona canals for the use of this and other canals on the north side of the Salt River. The entire north-side system was purchased by the Reclamation Service in 1906, and a concrete dam for diverting water into it has recently been completed at Granite Reef, below the old Arizona dam. The Arizona canal has been enlarged, straightened, and greatly improved, and the entire distribution system on the north side of the canal has been remodeled and almost entirely reconstructed, effecting a considerable economy of water and far more efficient service than ever before.

A canal to connect Granite Reef dam with the south-side system of canals is under construction and will soon be completed. When this is accomplished the Granite Reef dam will serve as a heading for the entire canal systems on both sides of the river, with the exception of some small canals that pick up seepage water from the river in the lower part of the valley.

The Salt River project as a whole is about 75 per cent completed.

YUMA PROJECT, ARIZONA.

The Yuma project provides for the diversion of Colorado River into its valley on both sides about 12 miles northeast of Yuma, Ariz. It will irrigate about 17,000 acres of land on the California side, mainly on an Indian reservation, and about 75,000 acres on the Arizona side. The dam will have a total length of 4,780 feet, a width of 257 feet, and a maximum height of 19 feet. The construction of this dam was begun under contract in July, 1905, but owing to the uncertainties of river control it finally became necessary for the Reclamation Service to assume its construction under force account. A spur railroad has been built connecting with the main line of the Southern Pacific, and the final closure of the river is now being made. Barring unexpected catastrophes, the dam will be completed during the current winter and water will be turned into the canal on the California side some time next summer.

The Yuma project as a whole is 53 per cent completed.

In response to a very urgent and practically unanimous petition from the people of the Imperial Valley, the Reclamation Service has undertaken the survey of a high-line canal to connect with

Laguna dam the Imperial Valley, in order to provide for the irrigation of about 200,000 acres of land lying above the canals in that valley.

ORLAND PROJECT, CALIFORNIA.

The Orland project will provide storage reservoirs on the headwaters of Stony Creek, the waters of which will be used in the vicinity of the town of Orland, Cal. A contract has been let for the construction of a storage reservoir at East Park, and work is now in progress on the diversion dam and canals. This project is regarded as the initial unit of a project for the general development of the Sacramento Valley. The Orland project is about 15 per cent completed.

GRAND VALLEY PROJECT, COLORADO.

Surveys have been made for the diversion of Grand River in the canyon above Palisades, and the construction of canals and tunnels to convey the water by a high line through the valley about Palisades, Grand Junction, and Fruita to irrigate the lands above existing canals. This project will irrigate about 50,000 acres of land.

UNCOMPAHGRE VALLEY PROJECT, COLORADO.

This project will divert the waters of Gunnison River through a tunnel about 6 miles in length into the Uncompahgre Valley, to irrigate about 140,000 acres of land, a portion of which already has a partial water supply.

The tunnel was first contracted, but since the financial failure of the contractor work has been prosecuted by force account under the engineers of the Reclamation Service. The great difficulties enumerated in previous reports have continued, the water in the river end of the tunnel being specially troublesome. Water is also increasing in the lower end of the tunnel, but as this is drained by gravity it does not present very serious difficulties. The progress on this work to the end of October was as follows:

	Linear feet.
East end :	
Full section -----	7,056
Undercut drift-----	2,358
Total east end-----	<u>9,414</u>
West end :	
Full section -----	13,546
Undercut drift-----	3,261
Total west end-----	<u>16,807</u>
Total full section-----	20,602
Total full and undercut drift-----	26,221
Concrete lining :	
West end-----	8,484
East end -----	None.

The canal system for the Uncompahgre Valley project is nearly completed, but owing to the treacherous nature of the material in the bad lands through which it runs great labor and expense is involved in properly priming and repairing leaky portions.

MINIDOKA PROJECT, IDAHO.

This project diverts water from Snake River, near the station of Minidoka, Idaho. About 60,000 acres on each side of the river will be irrigated from this diversion under the present plans and the canal systems for this have been practically completed. A portion of the lands on the north side and most of those on the south side lie above the gravity canals and will be served by pumping, the power being developed at the diversion dam, which is about 50 feet high. The gravity system of this project is practically completed and the pumping system is about 40 per cent completed.

PAYETTE-BOISE PROJECT, IDAHO.

The Payette-Boise project provides for the storage of waters on both Payette and Boise rivers, with storage reservoirs on each stream. A diversion dam about 40 feet high has been completed in Boise River, which diverts water into a large canal leading to a storage reservoir which has been constructed a few miles west of Nampa, known as the "Deer Flat Reservoir." Two large earthen embankments were required to form this basin and have been completed. The large canal was in service during the past irrigating season in an incomplete state, but it is now nearing completion. It serves a large area of land between the diversion point and the Deer Flat Reservoir and will be used during the nonirrigating months for filling the reservoir.

GARDEN CITY PROJECT, KANSAS.

This project will obtain water for irrigation by pumping from underground. For this purpose a power plant has been constructed at Deerfield, Kans., consisting of steam turbines driving electric generators, from which the power is delivered to 23 separate pumping stations, supplying about 8,600 acres in the vicinity of Garden City. The system has been in operation during the latter part of the past summer and is expected to fully serve the lands under it during the next irrigating season.

HUNTLEY PROJECT, MONTANA.

The Huntley project diverts water from the right bank of Yellowstone River at a point about 3 miles above Huntley, Mont. This project served about 20,000 acres of land during the past season.

and demonstrated the fertility thereof. The lands to be reclaimed form a portion of the area which the Crow Indians by treaty ceded to the United States in 1904. The settlement of the project has been steady and satisfactory and the settlers have met with gratifying success, considering the difficulties of the first year in a new region.

MILK RIVER PROJECT, MONTANA.

The settlers on Lower Milk River nearly a year ago petitioned the department to build diversion works for a flood-water canal from Milk River and volunteered to construct the canal system themselves, taking credit upon their water rights for labor thus performed. Arrangements to this effect were accordingly made and surveys prosecuted during the past summer. The Reclamation Service is now building a diversion dam near Dodson, in pursuance of the above arrangement, and the settlers have excavated about 110,000 cubic yards of earth on the main canal.

ST. MARY PROJECT, MONTANA.

On this project operations with steam shovel and excavator have been continued through the favorable season, and satisfactory progress has been made.

SUN RIVER PROJECT, MONTANA.

Sun River project provides for the irrigation of a large acreage on both sides of Sun River and the regulation of its waters by a number of reservoirs. The first unit provides for the irrigation of about 18,000 acres in the vicinity of Fort Shaw. This unit was completed in the spring of 1908. Some damage was done by the unusual floods about the time of the completion, but this was repaired in time for use. A considerable acreage is now open to homestead entry under the provisions of the reclamation act and the opportunities for successful settlement are great.

LOWER YELLOWSTONE PROJECT, MONTANA-NORTH DAKOTA.

This project provides for the diversion of Yellowstone River on the north side about 18 miles below Glendive, Mont. The main canal is nearly completed and the greater portion of the distribution system is also ready for service. The diversion dam was contracted with the Pacific Coast Construction Company, but owing to physical disasters to their work and financial difficulties the contract was abandoned in August. The work was subsequently prosecuted by force account. It has been necessary to close down work on account of the season, but it is the intention to complete the dam next summer under force account.

NORTH PLATTE PROJECT, WYOMING-NEBRASKA.

The waters of North Platte River will be entirely controlled by a large reservoir now under construction about 50 miles above Casper, Wyo. These waters will be used for the reclamation of lands on both sides of the river in Wyoming and Nebraska, between Casper, Wyo., and Bridgeport, Nebr.

The storage reservoir has been named the "Pathfinder," and the great masonry dam which will impound over 1,000,000 acre-feet of water is about 90 per cent completed. The first unit of irrigation from this storage is the Interstate Canal, heading near Whalen, Wyo., and watering about 30,000 acres in Wyoming and 80,000 in Nebraska. The diversion dam near Whalen was contracted by S. R. H. Robinson and partially built, but was abandoned by the contractor during the past summer. Its completion has been undertaken by the Reclamation Service under force account. Water was delivered to about 60,000 acres of land during the past season under the Interstate Canal, and this will be increased to 100,000 during next season from canals now being completed. The agricultural results from the irrigated lands during the past year have been very satisfactory.

TRUCKEE-CARSON PROJECT, NEVADA.

- The Truckee-Carson project provides for the storage of water in the upper basin of Truckee River and its diversion upon lands in the valleys of Truckee and Carson rivers mainly lying in the lower Carson basin. A large conduit of 1,400 second-feet capacity has been completed, diverting water from Truckee River and carrying a capacity of 1,200 second-feet to Carson River for use in that basin. The main canal from Carson River has also been completed and about 100,000 acres of lands placed under irrigation. A large portion of these lands is still open to homestead entry under the provisions of the reclamation act.

CARLSBAD PROJECT, NEW MEXICO.

This project was first constructed by private enterprise nearly twenty years ago, but was not successful physically or financially. After contending with washouts and various other disasters the proprietary company in 1905 found itself unable to replace the Avalon Dam, which had been destroyed by a flood in 1904 and upon which the canal system depended for its supply. The property was purchased by the United States and Avalon Dam was rebuilt. Many repairs and improvements were necessary, and the canal system is now completed. Operations are now in progress for the right of way of the MacMillan Reservoir, which is the principal reservoir for the

project. Water was delivered to about 8,000 acres during the past season and it is expected that the entire project of 20,000 acres will be supplied during 1909.

HONDO PROJECT, NEW MEXICO.

Hondo project is now practically completed and provides for the storing of the waters of Hondo River in a basin constructed to the north of the river, from which the stored waters will be discharged into the channel of Hondo River below and diverted upon lands in the vicinity of Roswell, N. Mex. This project contemplates the reclamation of 10,000 acres of land.

RIO GRANDE PROJECT, NEW MEXICO-TEXAS.

The Rio Grande project contemplates the construction of a large storage reservoir below the station of San Marcial on the Santa Fe Railroad. This reservoir will have a capacity of over 2,000,000 acre-feet and is designed to completely regulate the entire flow of the river at this point. The stored waters will be diverted at four different points and will irrigate about 180,000 acres of land in the United States, a small portion of which is now under cultivation with a very uncertain water supply from the natural flow of the river. By treaty with Mexico 60,000 acre-feet of water will be delivered from this reservoir annually at the head of the Mexican ditch in El Paso for use on the Mexican side. To provide for the proportionate share of the expenses, Congress made a direct appropriation of \$1,000,000, which is being used in the acquirement of rights of way for the reservoir and in preparations for the construction of the dam. These preparations consist of the extension of the foundation and abutments and the establishment of camp and water supply.

A survey has been made for a railroad from Engle to the dam site, and negotiations are in progress with the Santa Fe Railroad Company to secure the construction of a spur line to the dam site.

The first diversion dam has been completed in the vicinity of Fort Seldon, and the unregulated waters of the river have been delivered to the canals about Lascruces during the past season, 16,000 acres having been thus irrigated.

BUFORD-TRENTON AND WILLISTON PROJECTS, NORTH DAKOTA.

During the past season water was delivered from two pumping projects constructed on the left bank of the Missouri River, raising water from that stream into the canals by means of power generated with the lignite which abounds in that vicinity. The central power station is located near Williston, and power is transmitted to the pumping station near Buford in the form of electric currents.

The season of 1908 has been unfavorable for the growth of crops and but a small acreage was irrigated. A much larger acreage will be supplied during 1909.

KLAMATH PROJECT, OREGON-CALIFORNIA.

The Klamath project involves the reclamation of lands in Oregon and California by the use of waters from upper Klamath Lake and Lost River, near Klamath Falls, Oregon. A large canal from upper Klamath Lake to Lost River has been completed by contract and water was delivered in the past season to the lands along its course. A power canal on the right bank of Link River has been completed, which will furnish power for local use and supply the needs of the company whose enterprise has been superseded by the Government. A contract has been let for the east branch extension of the main canal and work has begun on force account upon a dam at the outlet of Clear Lake to convert this lake into a storage reservoir for use in the Langell and Yonna valleys.

UMATILLA PROJECT, OREGON.

The Umatilla project diverts the water from Umatilla River and conducts it by means of a long conduit to a reservoir recently constructed near Cold Springs. This reservoir is formed by building an earthen dam about 100 feet high across a dry ravine. This dam was completed in the early part of 1908. The reservoir thus formed has a capacity of about 50,000 acre-feet. The outlet canal and distribution system were built mainly by contract, and about 7,000 acres were placed under water in 1908. A larger area will be available in 1909, probably about 10,000 acres. The project contemplates the reclamation of about 20,000 acres.

BELLE FOURCHE PROJECT, SOUTH DAKOTA.

The Belle Fourche project provides for the diversion of the waters of Belle Fourche River and their storage in a large reservoir to be constructed on Owl Creek at its junction with Dry Creek. The diversion dam and feed canal have been completed and work is being carried on under contract on a large earthen dam across Owl Creek. Water was ready for delivery during the past season on about 12,000 acres of land and a considerable portion of this area was placed under cultivation. Work has been in progress during the past season on an extension of the south side canal, and a considerable additional area will be placed under irrigation during the coming year.

STRAWBERRY VALLEY PROJECT, UTAH.

The Strawberry Valley project provides for the construction of a storage reservoir on Strawberry Creek, a tributary of the Duchesne River, Utah. Stored water will be diverted through a tunnel 4 miles in length and discharged into Diamond Creek, a tributary of Spanish Fork River. A canal for diverting this water from Spanish Fork River has been completed and placed in service. A power plant has been installed on this canal and is about ready for operation. The power will be used for the construction of the tunnel which has been opened and will be prosecuted during the present winter.

OKANOGAN PROJECT, WASHINGTON.

The Okanogan project, in northern Washington, provides for the storage of water on Salmon River and its diversion at a point lower down to cover bench land lying between Alma and Riverside, on the bench west of Okanogan River. The Conconully Reservoir, on Salmon River, is being constructed by force account, the earth and gravel being placed by sluicing methods similar to those used in hydraulic mining. About one-third of the entire amount of material required for this dam has been placed. The Okanogan project as a whole is 83 per cent completed.

SUNNYSIDE PROJECT, WASHINGTON.

The Sunnyside canal system of the Washington Irrigation Company, which was purchased by the Reclamation Service, has been enlarged and improved for the better service of the larger area of land. A permanent dam of concrete and headworks of the same material have replaced the former structures and were in use during the past season. An extension of the system has been completed and water will be delivered the coming year to lands in the vicinity of Mabton, on the south side of Yakima River. A large wastewater below Zillah has been completed and greatly increases the safety and efficiency of the system. Storage has been provided also on Lakes Kachess, Kichelus, and Clealum, which will be replaced by larger permanent dams below.

TIETON PROJECT, WASHINGTON.

The Tieton project diverts water from Tieton River on the right bank in the Tieton Canyon, and carries it along the canyon wall and over the divide into the Cowiche basin, where an area of about 30,000 acres can be watered. The work in the canyon is largely in rock and difficult of access, and involves a large amount of tunneling. The excavation of the tunnels has been nearly completed and the lining of the same is now in progress. The open canal, which will be lined

with concrete, has been more than half completed, and these works will be finished in 1909. The waters utilized for this project are appropriated lower down from Natches River, into which the Tieton flows. The water to be diverted from the Tieton will be supplied to the prior appropriators on the Natches by storage in Bumping Lake reservoir, the construction of which will be undertaken next year. A road to this reservoir is now about completed.

SHOSHONE PROJECT, WYOMING.

The Shoshone project contemplates the control of the waters of the storage reservoir by the construction of a dam 328 feet high, 8 miles above Cody, Wyo. This dam, which is being constructed by contract, will be the highest dam in the world. The work on the dam has been delayed by washouts and financial difficulties, but is now progressing satisfactorily and will probably be completed within a year. The reservoir to be formed will have a storage capacity of about 420,000 acre-feet. A diversion dam and tunnel have been completed near Corbett, and water was delivered to about 15,000 acres during the past summer. A considerable portion of this project has now been settled and settlers are coming in at a satisfactory rate. Additional areas will be covered by a distribution system and placed under irrigation as settlement demands.

PRINTING AND PUBLICATIONS.

In compliance with the provisions of sections 681 and 683, Revised Statutes, and the acts of February 12, 1889 (25 Stat. L., 661), and July 1, 1902 (32 Stat. L., 630), 2,899 volumes of the United States reports, one set of Russell & Winslow's Digest, and 115 sets of the reports published by the Lawyers' Cooperative Publishing Company were received by the department and distributed to executive and judicial officers of the Government.

As provided in section 5 of the act of July 1, 1902 (26 Stat. L., 630), 32 sets of Revised Statutes of the United States and supplements were distributed to Senators and Representatives.

As the distribution of United States reports and Revised Statutes is in no way connected with the work of this department, it is recommended that this be transferred to the Superintendent of Documents.

Careful attention has been given to the department printing, and it is estimated that a saving of \$30,000 has been effected by reason of the more careful scrutiny of printing requests.

Blank forms have been standardized both as regards size and quality of paper, and the use of a cheaper grade has been substituted wherever this could be done without detriment to the public service. Expensive leather bindings have been discarded, and canvas, buckram, and book cloth are now used almost exclusively for binding the books of the department.

TERRITORIES.

The following order of the President of May 11, 1907, has continued in force:

It is hereby ordered that on and after June 1, 1907, all official communications or reports from and to executive officers of the Territories and territorial possessions of the United States—viz, Arizona, Hawaii, New Mexico, Oklahoma, Porto Rico, Alaska, Indian Territory, Samoa, and Guam—and all official communications or reports relating to territorial matters from and to all executive officers of the United States stationed in such Territories and territorial possessions, shall be transmitted through the Secretary of the Interior in such manner and under such regulations as he may prescribe.

The result of thus centralizing information regarding the Territories and placing their administration, so far as the law permits, under a single department, has proved of great benefit.

Business with the territorial officials is handled without unnecessary delay, and there is harmony and uniformity in the decisions relating to territorial administration.

ARIZONA.

Conditions in Arizona are steadily improving. The population is now estimated at 200,000, an increase of 15,000 during the year.

The financial condition was never better, the territorial treasury showing an increase of \$75,308.86 over last year. Taxable property has increased to \$80,000,000, an increase of \$3,000,000 over the preceding year, while the territorial rate of taxation is not increased and the local rate of taxation throughout the Territory has decreased. There is no difficulty in caring for the current expenses of the Territory and the retiring of the bonded indebtedness, \$10,000 of which was retired during the year.

The organization and use of the rangers has been most satisfactory in the enforcement of law and order.

The annual school census gives 34,299 as the number of children of school age (6 to 21 years) in the Territory. The total number of children enrolled in the schools is shown to be 28,836. This would indicate apparently that nearly 8,000 children fail to attend school, but it is explained that most pupils finish school at the age of 18, although they are enumerated in the school census until they are 21.

Practically all of the children who attend no school are of Mexican parentage. To remedy the evil of nonattendance at school the legislature has enacted a law which makes attendance compulsory under severe penalties for parents and guardians. There are 301 school districts, employing 645 teachers, 109 men and 536 women. The average monthly salary paid men teachers was \$99.50; for women it was \$75.06.

Notwithstanding the reduction in the production of copper, the mining operations in the Territory show an increase over last year, and the agricultural possibilities have been greatly increased by the development of irrigation projects, experiments in dry farming, and the introduction of new grasses on the open ranges.

In view of the improved showing made in all directions, the demand of the people for statehood is fully justified.

NEW MEXICO.

The rapid increase in population referred to in my report of last year continues. Nearly 15,000 homestead entries on over two and one-quarter million acres of land were made during the year. It is significant that this increase in the agricultural population is not confined to the river valleys, but much of it is found along the mesas which, until recently, have been given up entirely to grazing. This fact is due to the success of dry farming. If this proves an ultimate success, it is estimated that nearly 50,000,000 acres of land in New Mexico will be available.

The population of the Territory is now estimated at 450,000, an increase of 50,000 over last year.

It is believed that the construction of government reclamation projects, the increase in railroad building, the increase in the number of banks and mercantile firms, the output of the coal mines and lumber mills, and the development of the farming and grazing industries have increased the wealth of the Territory not less than \$25,000,000, and the promises are that the coming year will show a still greater increase.

The financial condition of the Territory was never better, the balance on hand in the Treasury at the end of the fiscal year being \$33,528.13 in excess of that of the preceding fiscal year.

The advancement in educational conditions keeps abreast of the material development of the Territory. The last school census shows a school population of 84,942, as against 78,360 in 1906. The fact that all persons between the ages of 5 and 21 are included in the school census causes the enrollment of 40,000 to bear a much lower rate to the school population than it would if the school census included persons between the ages of 6 and 21, as in most other States and Territories. Nine hundred and twenty-nine teachers were employed at an average salary, in the cities and towns, of \$68.20, and in the rural districts, of \$51.48. The total value of school property is \$964,184.

In short, the improved and improving conditions along all lines are such as fully justify the demand of the people for statehood.

The production of coal in New Mexico during the fiscal year ended June 30, 1908, according to the report of Mine Inspector J. E. Sheri-

dan, exceeded that of the preceding fiscal year by 279,489.2 tons, or 12.58 per cent, the quantity mined having been 2,500,873.2 tons. The money stringency and a mild winter in the West and Southwest operated to prevent a larger increase in production. The mines were therefore not continuously operated, and during the last eight months of the fiscal year many of the foreign-born miners returned to Europe.

For several years the coal area of New Mexico has been estimated at 1,430,480 acres and the available coal at 8,809,840,000 tons, but an investigation made by geologists of the United States Geological Survey has immensely increased the estimate of coal land and of available coal, which are now fixed at 13,335 square miles (8,534,400 acres) and 163,780,000,000 tons still available, more than 18 times the tonnage estimated by the office of the territorial mine inspector.

The coal lies principally in the Raton field, which comprises 1,360 square miles (870,400 acres) containing 30,805,000,000 tons of bituminous coal, and in the San Juan field, which comprises 11,600 square miles (7,424,000 acres) containing 131,375,000,000 tons of subbituminous coal (principally). The Cerrillos, Carthage, and other fields include 375 square miles of coal land, containing 1,600,000,000 tons of coal—anthracite, bituminous, and subbituminous.

There were during the year 34 fatal accidents among the 3,670 persons employed in the mines, a ratio of 9.03 persons killed for each 1,000 employed. Of these 11 were killed by a coal-dust explosion, 16 by falling rock, and 7 by other causes.

ALASKA.

The population of Alaska is estimated at 31,000 permanent whites, 7,000 transients who are employed in the mines, canneries, and railroad camps during the summer and leave at the close of the season, and about 35,000 natives.

The assessed valuation of property in the district is \$9,249,300, and the rate of taxation ranges from 1 to 2 per cent.

Settlement of the public domain does not appear to have been very extensive during the past year, only 439 homesteads having been taken up during that time.

There has been a slight decrease in commerce between Alaska and the United States due to labor troubles, reduced gold output, lessened demand for merchandise, and the fall in the price of copper, the total value of merchandise shipped to the United States during the year being \$31,766,044.

Gold, still the leading product, is being successfully mined throughout the whole Territory, the value of that metal shipped to the

United States during the year being \$17,490,777, of silver \$13,007, and of copper \$474,172.

Extensive fields of high-grade coal have been found in the Matanuska River and Bering River valleys, and workable deposits of coal are reported in the region of Norton Bay, near tidewater. The great value of the coal fields of Matanuska and Bering rivers having been determined and the transportation assured, the development of these fields will rapidly follow. The existing coal-land laws require radical modification. These changes should be made in accordance with whatever general method Congress may prescribe for the disposition of the coal lands in the United States proper, with such additional provisions as may be necessary to meet the special conditions in Alaska.

Other minerals produced in more or less paying quantities throughout the Territory are tin, lead, petroleum, antimony, graphite, bismuth, cinnabar, and talc.

The experiment stations conducted by the Department of Agriculture have produced satisfactory results. Wheat and oats have been fully matured, and a great variety of plants and vegetables have been cultivated. The experiment of raising sheep and Galloway cattle on Kodiak Island is progressing successfully.

The total pack of the salmon canneries for the year will be about 2,000,000 cases of 4 dozen 1-pound cans each. The price of salmon has been such as to insure good profit during the year. Other fish that enter into the commerce of Alaska are halibut, cod, herring, and whale.

Construction work upon various railroads shows the following results: The Council City and Solomon River Railroad and the Seward Peninsula Railway are completed and in operation. The Copper River and Northwestern Railway has changed its terminus from Katalna to Cordova and has now 25 miles of track laid in the direction of Abercrombie Rapids. The Alaska Central Railway has 53 miles of track laid. The Tanana Mines Railroad is operating successfully about 50 miles of railroad to Dome and Vault creeks and the Chathanika River, and the Alaska Short Line Railway has a terminus at Iliamna Bay. The Valdez and Yukon Railway has about 1 mile of track laid, and the Yakutat and Southern Railway has 15 miles of track.

The education of white children, which is placed under the jurisdiction of the governor by the act of January 27, 1905, has been progressing favorably; and the education of the natives under the Bureau of Education is also accomplishing good results. It is recommended, however, that a compulsory education law be passed.

The services rendered to the people of Alaska by the military cable and telegraph companies continue to be excellent. The lines are

being strengthened, and the services growing better from year to year.

The general administration of affairs in the Territory has not been by any means free from difficulty. Many of the settlements are still mining camps where the authorities have to face the usual conditions attendant upon life in such communities. There has, however, been a better enforcement of law and the gradual eradication of the gross evils arising as a result of the misuse of liquor and from gambling.

The condition of the Indian is improving. The sanitary work inaugurated by the Bureau of Education is tending to minimize the effect of disease and is accomplishing very beneficial results.

I desire to emphasize the recommendation made by the governor for legislation on the following subjects:

The fourth judicial division; the issuance of bonds by the town of Valdez to construct dikes to protect itself against glacial streams; the payment for the care of the insane of Alaska out of the United States Treasury; the change in licenses for the sale of intoxicating liquor and preventing the maintenance of gambling and dance halls, and the sale of whisky to Indians; for the control of the practice of medicine; the better lighting of the coast; the defining of what constitutes assessment work on a mining claim; the labor lien law; the sale of town sites; affording the natives of Alaska the right to acquire public lands; and providing for the extension of the limits of incorporated towns under the supervision of the courts.

HAWAII.

Careful attention should be given the report of the governor of Hawaii because of the constantly increasing importance of the Territory of Hawaii to the United States. Both politically and commercially the Territory occupies a unique position.

Future legislation affecting Hawaiian interests must be so framed as to closely unite its interests with those of the mainland. The people of the Territory thoroughly appreciate that the benefits which annexation gave them brought corresponding obligations to the United States. On the other hand, the people on the mainland should realize that the Territory is an integral part of the United States and must be treated as such.

This, of course, does not mean that all the laws of the United States should be made applicable to the Territory. Legislation must be in conformity with any special or unusual conditions. For example, the land laws in force upon the public domain in the mainland would be wholly inapt in Hawaii. There is need of change in the land laws of the Territory, but such changes must be made in conformity with the conditions there.

Formerly it was supposed that sugar was the only agricultural crop, but more recently it is found that many other products can be profitably raised, such as coffee, tobacco, rubber, pineapples, and sisal. The sugar plantations have been large in area, and until recently the small landholdings were not encouraged and were not profitable, but with the diversity in agricultural products a modification of the system of landholding will necessarily follow.

In order to deal wisely with the land question, the governor of Hawaii appointed a commission to study and report upon land conditions and make recommendation for needed changes. It is earnestly hoped that a system will be adopted under which farms may be acquired of small acreage, similar to the homestead on the mainland, so that ultimately the land will be cultivated by many owners instead of by tenants alone. Such a change does not involve the destruction of the sugar plantations, as was feared by some, but will increase the area of arable land and permit the use of lands for the crops which will be most profitable.

In this connection I have had Mr. Newell, the director of the Reclamation Service, make a thorough personal examination of the land and water conditions in the islands for the purpose of considering a plan for the reclamation of lands which can not now be cultivated because of the lack of water.

The water conditions in Hawaii are phenomenal. It is generally supposed that the rainfall throughout the islands is excessive. This is true in localities, but there are thousands of acres where irrigation is as necessary as in the arid districts of the West.

The Federal Government should treat Hawaii as it does the mainland, giving its people the advantage of all the work which is being carried on by the Departments of Agriculture and the Interior in the study and development of its agricultural possibilities.

Directly connected with the land and agricultural problems is the question of labor. Since cutting off the supply of Asiatic labor means must be taken to provide for the substitution of that labor, as it is required, with labor from the mainland or Europe. There is the heartiest cooperation between the sugar planters, now the large employers of labor, and the Federal Government in working out this difficult problem.

The transportation interests of the Territory deserve our most careful consideration. The success of increasing and diversifying the agricultural products of the islands depends upon proper transportation facilities by water. One harbor, at least, upon each island should be provided so that the products of that island may be shipped directly to the markets of the world. Congress has directed the beginning of this work, but further appropriations should be made immediately available. The ultimate commercial development of our trade with

the Orient is directly connected with proper provisions for ocean transportation with the islands.

The general conditions of the Territory are admirable. Educational work is given thorough attention. School conditions in the islands are most unusual. In the same school there are often represented more than a dozen different races. The school courses are thoroughly practical, especial attention being given to industrial courses.

Owing to the existence of leprosy, the problems affecting the public health have received careful attention. There has been the closest cooperation between the local authorities and the federal service, but both authorities feel the need of certain changes in the law, which have been presented to Congress, the purpose of which is to give greater authority to the health authorities to take necessary protective measures to prevent the introduction and spread of contagious diseases. The importance of this legislation can not be overestimated, because of the enormous number of travelers to and from the Orient who enter or pass through the port of Honolulu.

PORTE RICO.

The report of the governor of Porto Rico, with the accompanying reports of other territorial officers, have been transmitted to the President through the Secretary of State for submission to Congress, as required by law.

Under the act creating the government of Porto Rico, the reports by the governor and other officers are transmitted to different departments of the Federal Government. It would be better, for purposes of administration, if the Territory were placed by law, as the other Territories, under the jurisdiction of the Interior Department.

The affairs of the Territory have been well administered. I call particular attention to the reports of the various executive officers. The educational, political, and industrial conditions of the island are better than ever before in its history.

GUAM AND SAMOA.

The naval officers who act as governors of Guam and Samoa have submitted their reports to the Secretary of the Navy, as required by law.

Under instructions from the Secretary of the Navy, a special board of naval officers made a thorough investigation of the conditions on the island of Guam. The report of that board is full of interest. It shows that the conditions upon the island are good, and makes certain recommendations for improvement, which will be carried out so far as the law permits. If legislation be necessary, a special report will be submitted.

NATIONAL PARKS AND RESERVATIONS.

The national parks under the jurisdiction of the department are as follows:

	Acrea.
Yellowstone, in Wyoming-----	2,142,720.00
Yosemite, in California-----	719,622.00
Sequoia, in California-----	161,597.00
General Grant, in California-----	2,536.00
Mount Rainier, in Washington-----	207,360.00
Crater Lake, in Oregon-----	159,360.00
Wind Cave, in South Dakota-----	10,522.00
Sullys Hill, in North Dakota-----	780.00
Platt, in Oklahoma-----	848.22
Casa Grande Ruins, in Arizona-----	480.00
Mesa Verde, in Colorado-----	42,376.00
(5-mile strip for protection of ruins)-----	175,360.00
Hot Springs Reservation, in Arkansas-----	911.63

Another year's experience in the administration of these parks confirms my belief that all of them except the Hot Springs Reservation, in Arkansas, should be transferred to the Forest Service, under the Department of Agriculture, where they could be better handled in connection with the national forests. These parks can be better protected by forest rangers and scouts than by United States troops, and while the organization of such a body in the first instance would mean an additional appropriation, yet in the end it would prove an economy. The appropriations for the construction of roads in the Yellowstone and Mount Rainier parks should be transferred to the department which has immediate charge of these parks.

HOT SPRINGS RESERVATION.

The condition of affairs at Hot Springs, Ark., is greatly improved. This is largely attributable to the passage of state laws which eliminated from Hot Springs a very undesirable class of persons, thereby making the city much more attractive.

The number of baths given by the 24 bath houses aggregated 703,854, and the amount paid for the same was \$197,235.70. The total number of baths given by the bath houses and the government free bath house was 898,004. The number of visitors was greater than in any previous year.

There was received during the year from water and ground rents \$28,090, which, with a balance on June 30, 1907, of \$7,421.09, made the total amount available for use on the reservation \$35,511.09. The expenditures during the year were \$21,008.78, leaving a balance on July 1, 1908, of \$14,502.31.

Many desirable improvements were made on the reservation during the year to add to its attractiveness and protection. The bathing facilities of the government free bath house have been largely increased by the construction of large pools, and it now can afford bathing to 900 persons daily. The law providing for "maintenance of free baths for the invalid poor of the United States" has been carefully carried out. During the year 7,191 diseased, crippled, or afflicted persons were admitted, 69.5 per cent being white and 30.5 per cent colored. About one-tenth of the number of males were veterans of the civil war. The total number of baths given at the free bath house was 184,150.

The attention of Congress is called to the act of March 3, 1891, under which bath houses on the reservation were not required to pay anything except a stipulated price per tub for the hot water. At that period land in Hot Springs was of very little value, and the amount realized by the bath-house owners on their investment was very small. For many years the bath houses have made large profits, and the land on which their buildings stand has a value of several hundred dollars a front foot. I believe it to be only fair to the Government, as well as to the owners of bath houses off the government reservation (14 out of 24), that those situated on the reservation should pay a ground rent to the Government for the land occupied. I recommend that the law of March 3, 1891, be amended so as to provide that all leases of bath houses on the government reservation shall be required to pay a ground rent, to be fixed by the Secretary of the Interior.

I am having careful investigation made of the general conditions on the reservation, believing that there is need of some changes in the present methods of administration.

I have no doubt that ultimately the Federal Government should build a new bath house. I believe the present one to be not only inadequate, but insanitary, and if we are to continue supplying a place for free public baths, that place should be supplied with all necessary conveniences.

THE PRESERVATION OF AMERICAN ANTIQUITIES.

Under the authority of the act approved June 8, 1906, the President, by formal proclamation, has created out of the public and unreserved lands nine national monuments, in the order of creation as follows:

National monuments created out of public lands.

Name.	State.	Date.	Area.
Devils Tower.....	Wyoming.....	Sept. 24, 1906	1,152
Montezuma Castle.....	Arizona	Dec. 8, 1906	160
Petrified Forest.....	do	do	60,776
El Morro	New Mexico.....	do	160
Chaco Canyon	do	Mar. 11, 1907	20,520
Muir Woods.....	California	Jan. 9, 1908	295
Natural Bridges.....	Utah	Apr. 16, 1908	120
Lewis and Clark Cavern.....	Montana	May 11, 1908	160
Tumacacori.....	Arizona	Sept. 15, 1908	10

Out of the reserved forest lands national monuments have been created as follows:

National monuments created out of reserved forest lands.

Name.	State.	Date.	Area.
Cinder Cone.....	California.....	May 6, 1907	5,120
Lassen Peak.....	do	do	1,280
Gila Cliff Dwellings.....	New Mexico.....	Nov. 16, 1907	160
Tonto.....	Arizona.....	Dec. 19, 1907	640
Grand Canyon.....	do	Jan. 11, 1908	818,500
Pinnacles.....	California.....	Jan. 16, 1908	2,080
Jewel Cave.....	South Dakota.....	Feb. 7, 1908	1,280

BIRD RESERVES.

Reservations for the protection of native wild birds have been created by executive order as follows:

Bird reserves created.

Name of reservation.	Date.	Location.	Area.
Pelican Island.....	Mar. 14, 1903	East Florida coast.....	* 5.50
Breton Islands.....	Oct. 4, 1904	Southeast coast of Louisiana.....	Unknown.
Stump Lake.....	Mar. 9, 1905	North Dakota.....	27.39
Huron Islands.....	Oct. 10, 1905	Lake Superior, Michigan.....	Unknown.
Siskiwit Islands.....	do	do	Do.
Passage Key.....	do	Tampa Bay, Florida.....	86.87
Indian Key.....	Feb. 10, 1906	do	90.00
Tern Islands.....	Aug. 8, 1907	Mouths of Mississippi River, Louisiana.	Unknown.
Shell Keys.....	Aug. 17, 1907	South Louisiana coast.....	Do.
Three Arch Rocks.....	Oct. 14, 1907	West Oregon coast.....	Do.
Flattery Rocks.....	Oct. 23, 1907	West Washington coast.....	Do.
Quillayute Needles.....	do	do	Do.
Copalis Rock.....	do	do	Do.
East Timballer Island.....	Dec. 17, 1907	South Louisiana coast.....	Do.
Mosquito Inlet.....	Feb. 24, 1908	East Florida coast.....	Do.
Tortugas Keys.....	Apr. 6, 1908	Florida Keys, Florida.....	Do.

* About.

The following nine reservations have been created since June 30, 1908, the close of the last fiscal year:

Bird reservations created since June 30, 1908.

Name of reservation.	Date.	Location.	Area.
Klamath Lake.....	Aug. 8, 1908	Oregon and California.....	Unknown.
Key West.....	do.....	Florida Keys, Florida.....	Do.
Lake Malheur.....	Aug. 18, 1908	Oregon.....	Do.
Chase Lake.....	Aug. 28, 1908	North Dakota.....	Do.
Pine Island.....	Sept. 15, 1908	West Florida coast.....	Do.
Matlacha Pass.....	Sept. 26, 1908	do.....	Do.
Palma Sola.....	do.....	do.....	Do.
Island Bay.....	Oct. 23, 1908	Florida	Do.
Loch Katrina.....	Oct. 26, 1908	Wyoming	Do.

ELEEMOSYNARY INSTITUTIONS.

GOVERNMENT HOSPITAL FOR THE INSANE.

There were in the hospital on June 30, 1908, 2,733 patients, an increase of 137 over the preceding year; the daily average for the fiscal year ended June 30, 1908, was 2,664, an increase of 95 over 1907. During the year there were admitted 643 patients, an increase of 24 over the previous year, making a total of 3,239 patients under treatment during the year. Of the total number admitted, 342 were from civil life and 301 from the army, the navy, and the Public Health and Marine-Hospital Service.

The problem of the future expansion of the hospital must soon receive consideration. In 1900, when the preliminary appropriation was made for plans for an extension to the hospital to accommodate 1,000 additional patients, the number of persons under treatment in the institution was 2,076; and in his annual report for that year the superintendent stated that the institution as it then existed would accommodate comfortably not exceeding 1,600 patients, with the necessary employees. The 1,000 additional beds for which the extension was built are now all occupied, and within the past few months it has been necessary to put additional beds in other quarters of the hospital. The annual increase of population of the hospital is estimated at 100. The time has arrived, therefore, when a broad policy should be adopted which is to govern the future development of the institution. The superintendent estimates that 100 acres more land are required for the hospital.

The improvements during the year included the remodeling of the East Lodge building as a home for male nurses; new plumbing in the main building; completion of the fireproof system, involving the installation of 185 fireproof doors; the purchase of a steam fire engine; installing a steam sterilizer in the laundry; fitting up a recitation

room for the training school for nurses; and installing a circulating library of 3,000 volumes for the use of the patients.

The training school graduated 17 nurses, of whom 12 were women and 5 were men. This is hardly sufficient to meet the requirements of the hospital. The placing of female nurses in charge of male wards has proved a success and has been extended.

The scientific departments of the hospital have been active, and during the year 15 publications have been issued, besides several others which are still under preparation.

FREEDMEN'S HOSPITAL.

The number of patients treated in this institution during the year was 2,823, of whom 1,964 were residents of the District of Columbia, and 859 were admitted from various States. The number discharged was 2,692, of whom 1,624 recovered, 632 were improved, 113 were unimproved, 36 were not treated, and 287 died. The number remaining in the hospital at the close of the year was 131. The greatest increase in the work was in the surgical department, where 1,005 operations were performed. In the out-patient department 5,019 persons were treated.

The new Freedmen's Hospital building was completed in February of 1908, and 129 patients were transferred thereto on February 26 without mishap.

The hospital is now in a position to receive pay patients; at present, however, the law makes no provision therefor. The enactment of legislation authorizing the admission of persons who are able to pay for treatment would inure to the benefit both of the institution and of a class of patients who do not receive treatment there under present conditions.

The appropriation of \$25,500 made by the act of March 2, 1907, for the care and treatment in the Freedmen's Hospital of indigent patients belonging to the District of Columbia, under a contract to be made by the Board of Charities, was not sufficient to pay for the 1,964 patients admitted from said District at the rates fixed by the contract, to wit, \$1.10 per day for adults, 65 cents per day for children, and 40 cents per day for babies; nor has the appropriation been sufficient during the past three years to pay for the number of patients admitted at the prices fixed by the contract, the total amount of deficiency for the three years being \$32,379.10. Future estimates for payments to the hospital for the care and treatment of these indigent patients from the District of Columbia should be based upon the number of such persons treated during the previous year at contract rates.

An appropriation for a nurses' home is urgently needed; also for fencing and grading the hospital grounds.

The work of the training school for nurses has been excellent. Appointments are limited to those possessing certain physical qualifications, together with a liberal education. The number graduated during the year was 13, an increase of 1 over the preceding year.

HOWARD UNIVERSITY.

The number of students in attendance during the year aggregated 1,091, who came from 34 States and Territories, from Porto Rico, and from the following foreign countries: Africa, British West Indies, Canada, Republic of Panama, South America, Santo Domingo, Haiti, West Indies, and India. Of these 128 graduated from the several departments of the university. Satisfactory progress has been made in all departments.

The appropriations made by Congress for the past fiscal year were as follows: For salaries of officers, teachers, etc., \$40,000; manual training department, \$8,000; law and general library, \$1,500; improvements and repairs to buildings and grounds, \$7,000; fuel and light, \$8,000; chemical and other apparatus, \$200; total, \$59,700. All of the above amounts, on June 30, 1908, were expended or under contract.

The total receipts for the year, including federal appropriations and funds from all other sources, were \$155,815.21; disbursements, \$146,520.75, leaving a balance of \$9,294.46. The total of the general endowment and special funds on June 30, 1908, was \$175,356.45, of which amount \$173,170 represents cash invested.

The completion of the new Freedmen's Hospital, built by the Government on a tract of land adjoining the institution, aggregating 11 acres, leased from the Howard University for the purpose, will give the school of medicine exceptionally fine clinical facilities.

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

The number of students and pupils remaining in the institution July 1, 1907, was 115; admitted during the year, 39; since admitted, 42; total, 196, of which 113 were males and 83 females. Of these, 140 have been in the collegiate department, representing 35 States, the District of Columbia, Canada, and Scotland, and of the 56 in the primary department, 38 were admitted as beneficiaries of the District of Columbia. During the fiscal year 28 were discharged from the institution by graduation and otherwise. In addition to the foregoing, 17 colored deaf-mutes belonging to the District of Columbia have, under the act of March 3, 1905, been admitted through this institution to the Maryland School for Colored Deaf-mutes. General good health has prevailed among the students and pupils.

The receipts of the institution from all sources amounted to \$82,735.13, of which amount \$73,000 was appropriated by Congress for general support and \$5,000 for special repairs, and \$4,735.13 was

received from private sources for board, tuition, etc. The expenditures were \$76,959.68 for current expenses and \$5,000 for special repairs, leaving an unexpended balance of \$775.45.

MARYLAND SCHOOL FOR THE BLIND.

The number of United States beneficiaries remaining at the Maryland School for the Blind on June 30, 1907, was 17, since which time 6 have been admitted and 2 discharged, leaving 21 beneficiaries at the institution on June 30, 1908.

The total amount expended during the year ended June 30, 1907, for the care and maintenance of indigent blind children of the District of Columbia was \$5,475. The total amount expended for the fiscal year ended June 30, 1908, was \$6,150, half of which amounts was paid from the revenues of the District of Columbia and the other half out of the Treasury of the United States, pursuant to the act of Congress approved March 3, 1899 (30 Stats., 1101).

The act of May 26, 1908 (35 Stats., 295), making appropriations for the District of Columbia, provided that after July 1, 1908, a contract should be entered into by the Commissioners of the District of Columbia for the instruction, in Maryland or some other State, of indigent blind children of the District, for which purpose an appropriation of \$6,000 was made, repealing the permanent indefinite annual appropriation in section 3869 of the Revised Statutes. Inasmuch as the Secretary, by section 2 of the act of May 29, 1858 (11 Stats., 293), was also charged with providing for the instruction of the blind children of all persons in the military and naval service of the United States while such persons are actually in such service, the expense to be defrayed from the permanent indefinite annual appropriation above referred to, the question was submitted to the Comptroller of the Treasury as to whether that appropriation was repealed so far as to be no longer available for the instruction of this class of beneficiaries. In an opinion rendered October 27, 1908, the Comptroller held that the act of May 26, 1908, supra, only repealed the provisions of section 3689 of the Revised Statutes to the extent that said section provides for the education of the blind children of the District of Columbia, and that the permanent indefinite annual appropriation in question is therefore still available for instructing the blind children of all persons in the military and naval service of the United States, in some institution in Maryland or some other State, and that the Secretary is authorized to continue to issue permits for the instruction of such children.

WASHINGTON HOSPITAL FOR FOUNDLINGS.

Fifty-four children were cared for during the year, of whom 32 remained from the preceding year. There were 4 adoptions during the year, 4 children were returned to relatives or friends, 2 were transferred to other institutions, and 17 died. Twenty-seven children remained in the institution on June 30, 1908.

